CATALOGUE

M-64

ALUMINUM
AND WOOD
RAILINGS
GRILLES

Blumcraft

OF PITTSBURGH

Blumcraft
OF PITTSBURGH

As the originator of floating forms with new dimensions Blumcraft continues to coordinate fresh styling with changing architectural trends...

New wood handrails and wood posts are now furnished by Blumcraft. The solid walnut wood is an integral part of the aluminum sub-structure forming a new concept in wood and metal trademarked RAILWOOD*

NEW ARCHITECTURAL

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*Trade Mark

Ware

Ware Library

NEW RAILWOOD* LINE PRODUCTS IN THIS CATALOGUE
WOOD HANDRAILS . . . . PAGES 10-11
SCULPTURED WOOD POSTS . . . . . . PAGES 2-9

DELUXE LINE less costly than quality custom railings.

LOW COST TUBE LINE comparable in price with aluminum pipe railings; recommended for schools.

STOCK ADJUSTABLE COMPONENTS reduce costly shop and field labor.

COMPETITIVE BIDDING for public and private work as Blumcraft components are available to all fabricators.

FLEXIBILITY of the Blumcraft system permits the Architect freedom of design and a wide choice of interchangeable hand rail shapes and posts . . . . engineered for maximum finger clearance.

BLUMCRAFT PATENTS support continuous research and development of new concepts in ornamental railings and grilles. Protect new and original designs that are developed and prevent substitution of inferior imitations.

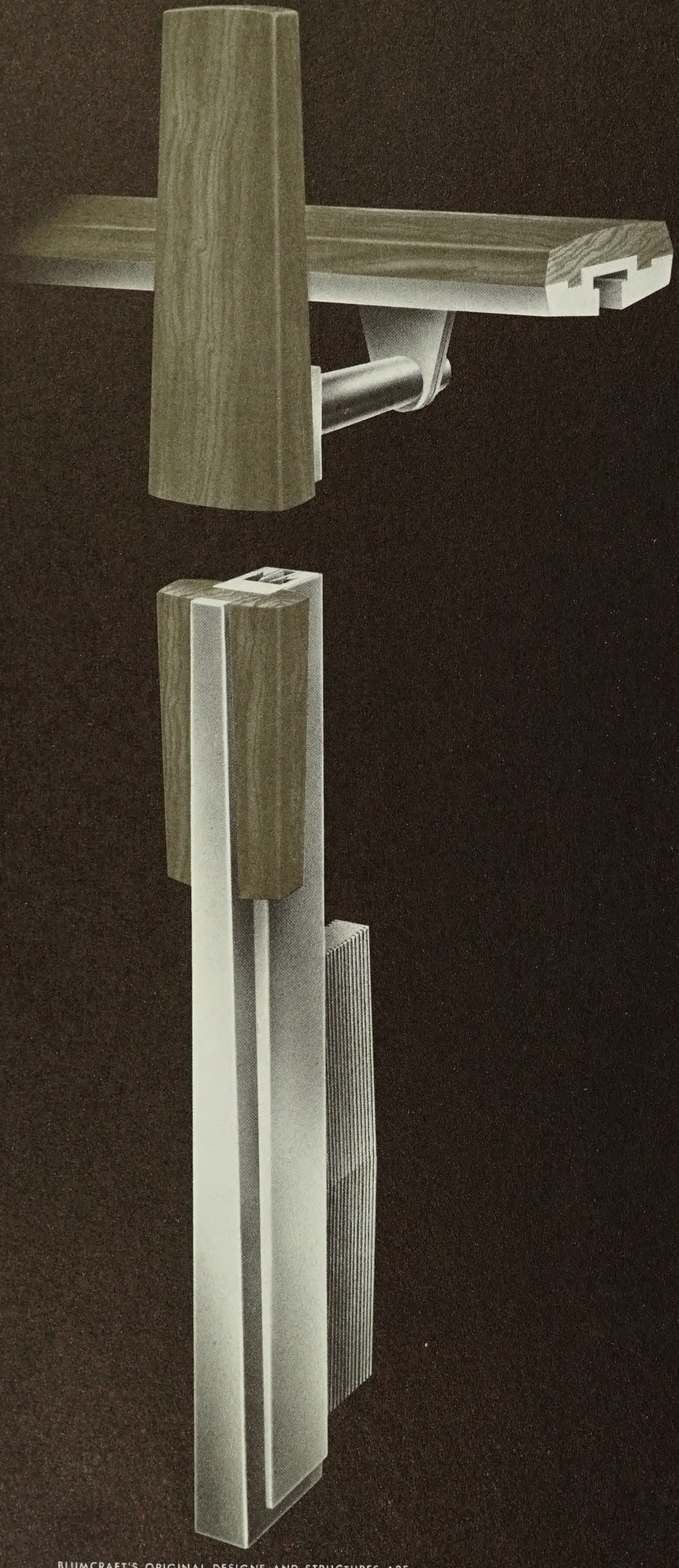
TELEPHONE REVIEW SERVICE BY "TECHNI-PHONE"

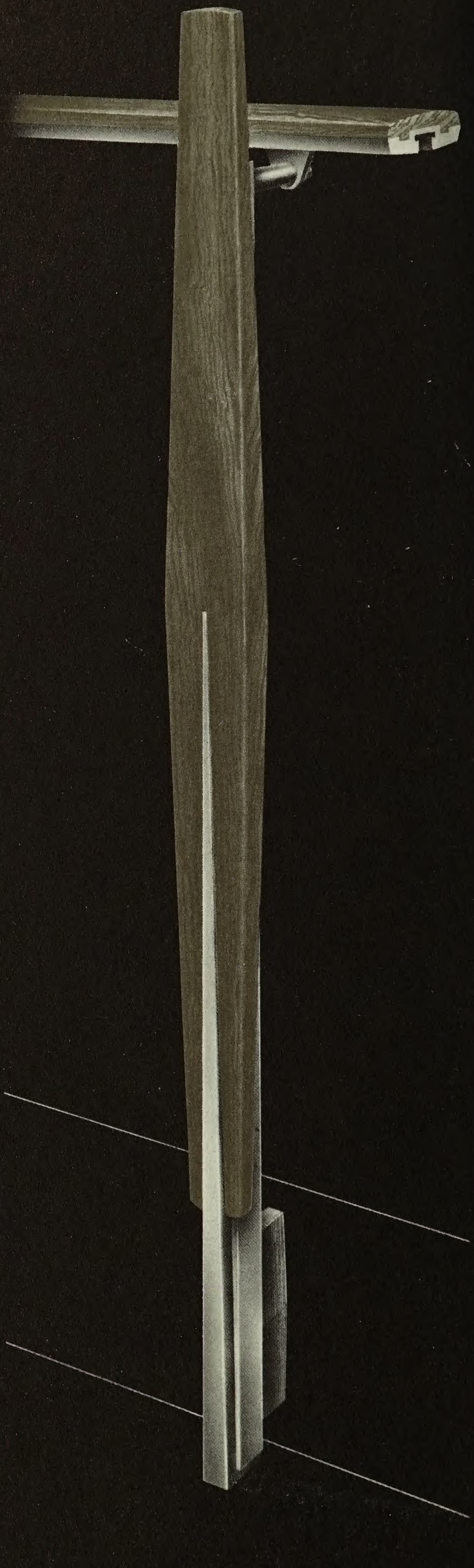
Architects preliminary drawings reviewed within 48 hours by Blumcraft's technical engineering staff. Telephone recommendations will be made directly to the Architect, concerning railing construction and other unusual problems. No formal letter is required, just the name and telephone number noted on the print with the word "review".

Blumcraft of Pittsburgh, 460 Melwood Street
Pittsburgh 13, Pa., Phone (AREA CODE 412) 681-2400

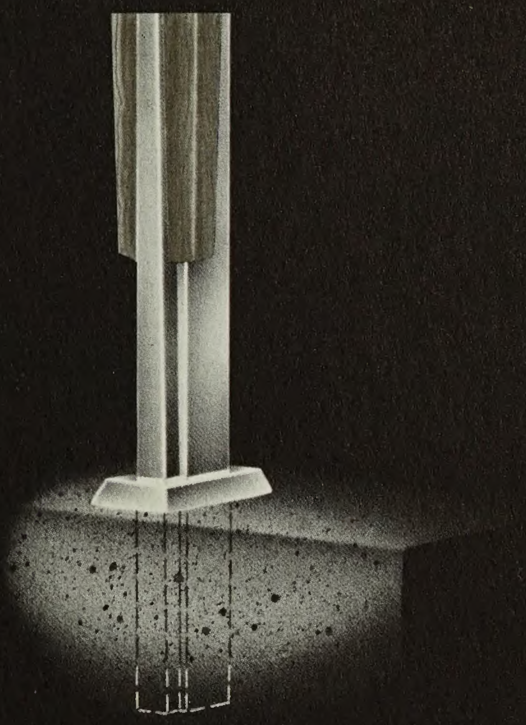
This catalogue supersedes all previous catalogues

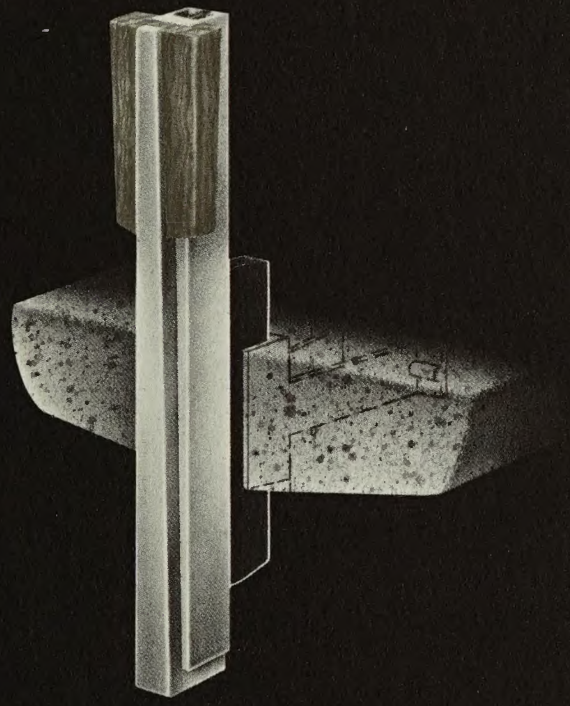
*Trade Mark

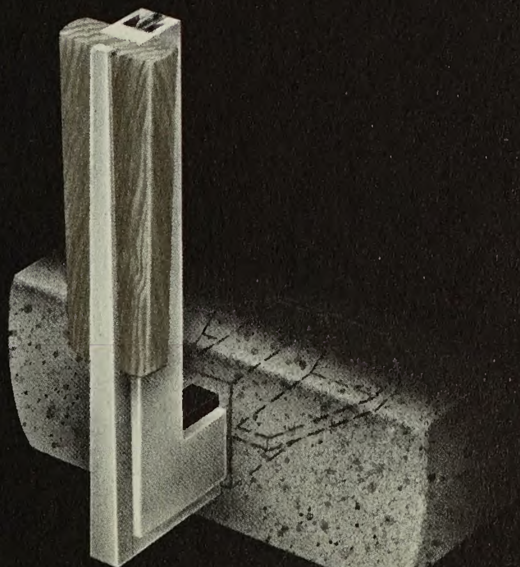




BLUMCRAFT'S ORIGINAL DESIGNS AND STRUCTURES ARE FULLY COVERED BY PATENTS AND PENDING PATENT APPLICATIONS IN THE UNITED STATES AND CANADA.







NEW RAILWOOD* POST 179 SCULPTURED WOOD POST WITH ALUMINUM SUB-STRUCTURE. SOLID AMERICAN WALNUT WOOD WITH A HAND RUBBED OIL FINISH.

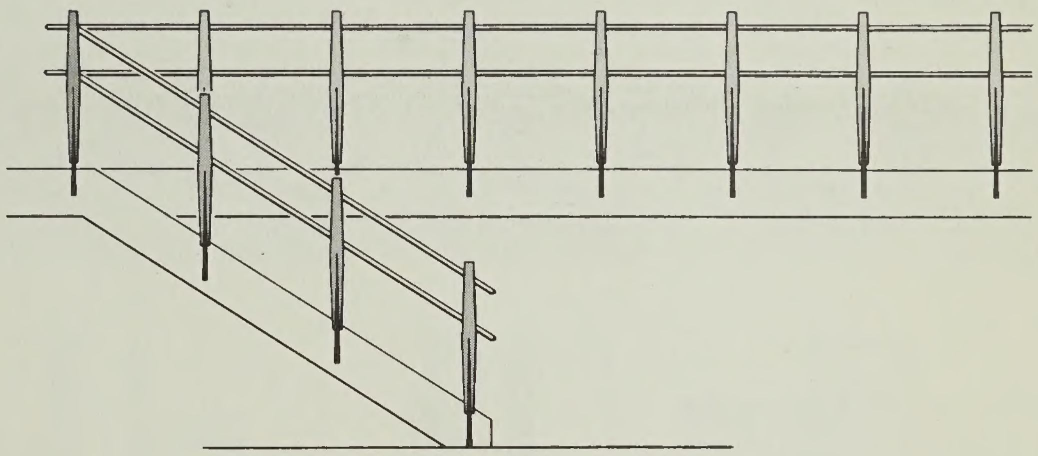


FIG. 660

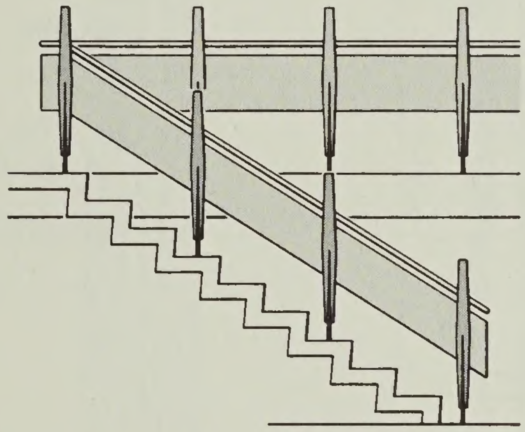


FIG. 661

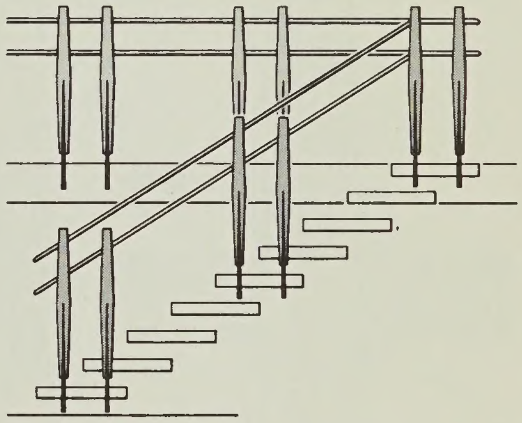


FIG. 664

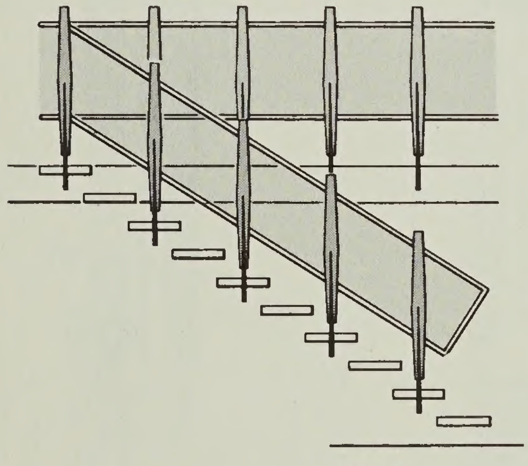


FIG. 663

DETAILS

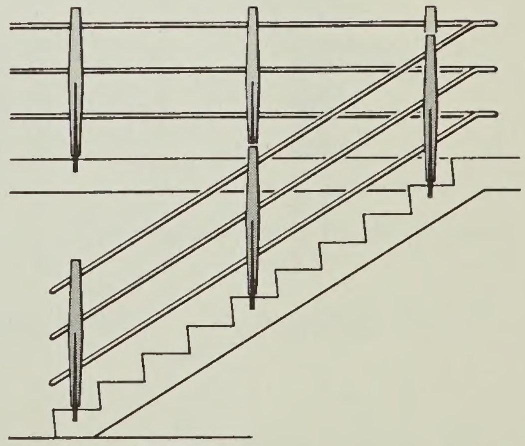


FIG. 665

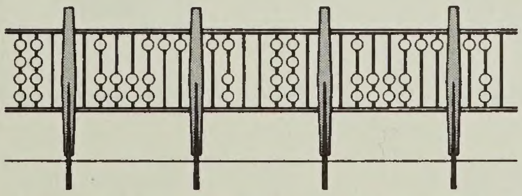
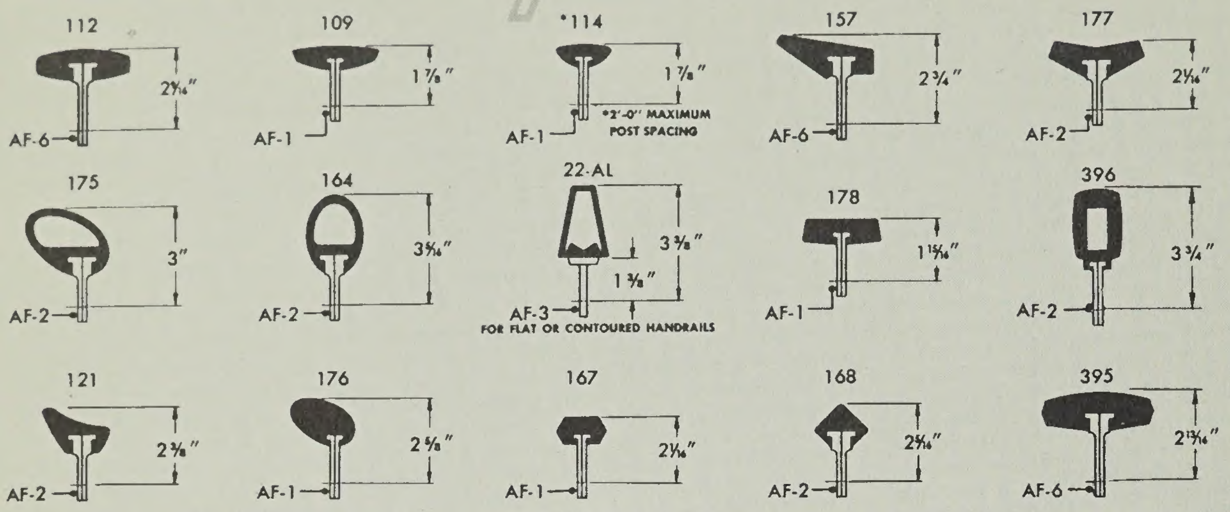


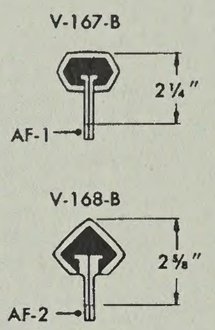
FIG. 662

*TRADEMARK

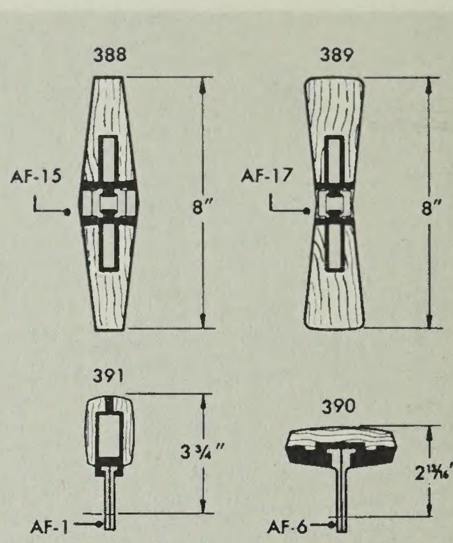

112
2 9/16"
AF-6
109
1 7/8"
AF-1
*114
1 7/8"
AF-1
*2'-0" MAXIMUM POST SPACING
157
2 3/4"
AF-6
177
2 1/16"
AF-2
175
3"
AF-2
164
3 5/16"
AF-2
22-AL
3 3/8"
1 3/8"
AF-3
FOR FLAT OR CONTOURED HANDRAILS
178
1 15/16"
AF-1
396
3 3/4"
AF-2
121
2 3/8"
AF-2
176
2 5/8"
AF-1
167
2 1/16"
AF-1
168
2 5/16"
AF-2
395
2 13/16"
AF-6

ALUMINUM RAILS

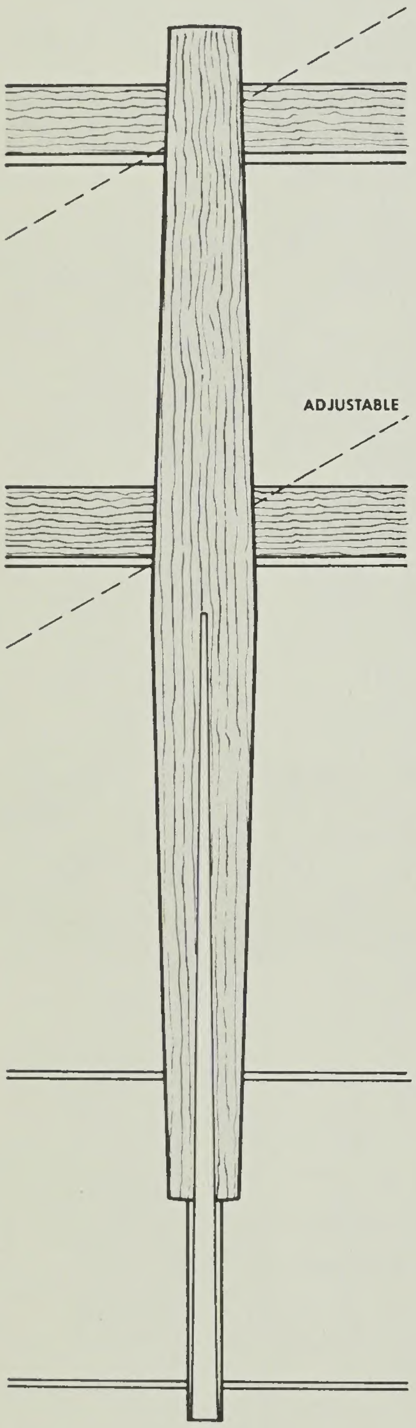
FULL SIZE SECTIONS
PAGES — 146-149


V-167-B
2 1/4"
AF-1
V-168-B
2 5/8"
AF-2

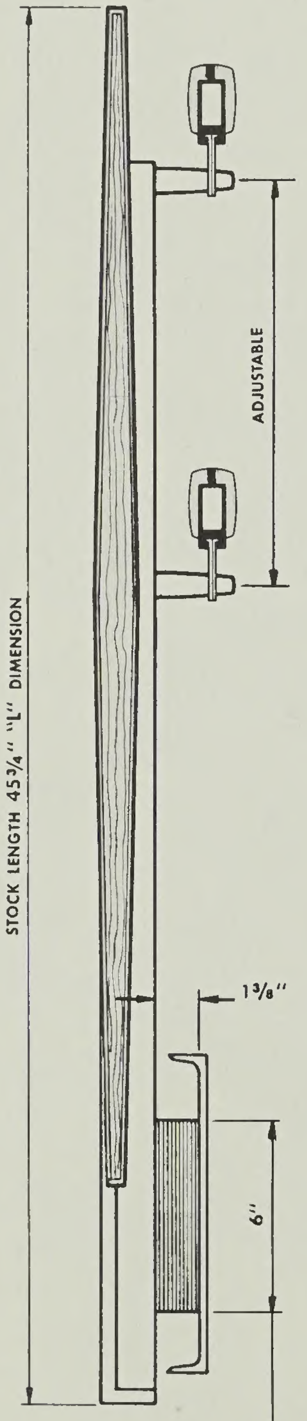
VINYL RAILS


388
AF-15
8"
389
AF-17
8"
391
3 3/4"
AF-1
390
2 13/16"
AF-6

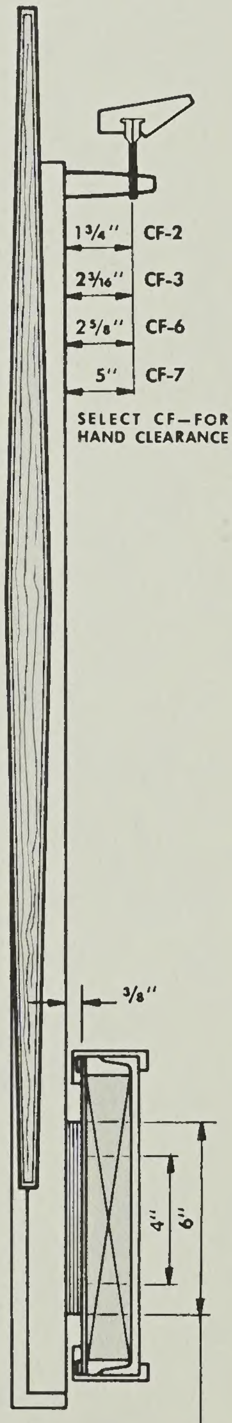
WOOD RAILS


ADJUSTABLE

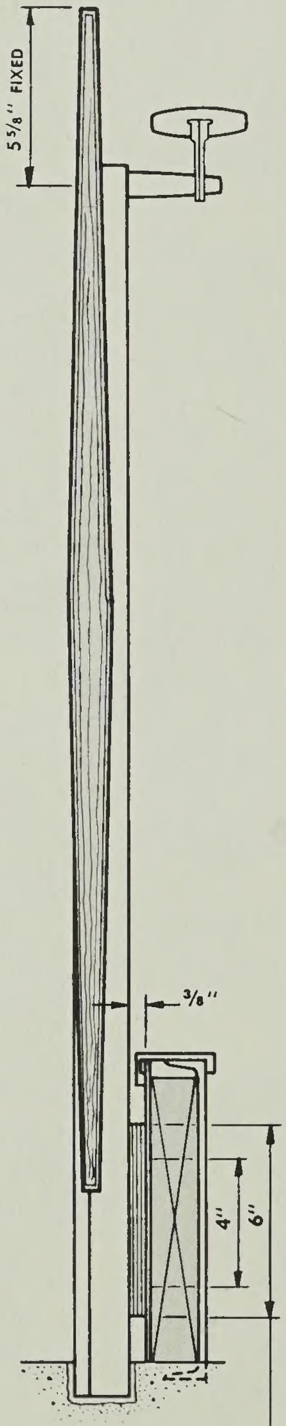
SIDE ELEVATION


STOCK LENGTH 45 3/4" "L" DIMENSION
ADJUSTABLE
1 3/8"
6"

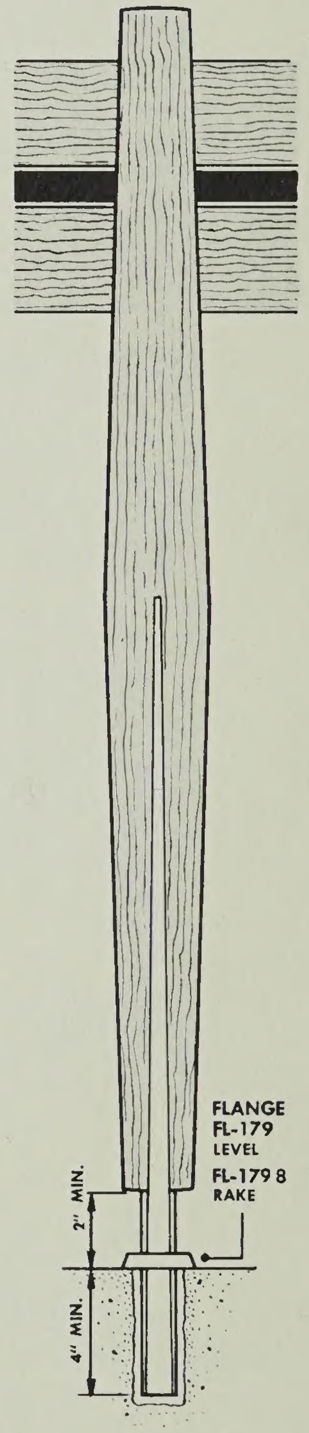
SM-32 BRACKET


1 3/4" CF-2
2 3/16" CF-3
2 5/8" CF-6
5" CF-7
SELECT CF—FOR HAND CLEARANCE
3/8"
4"
6"

SM-82 BRACKET

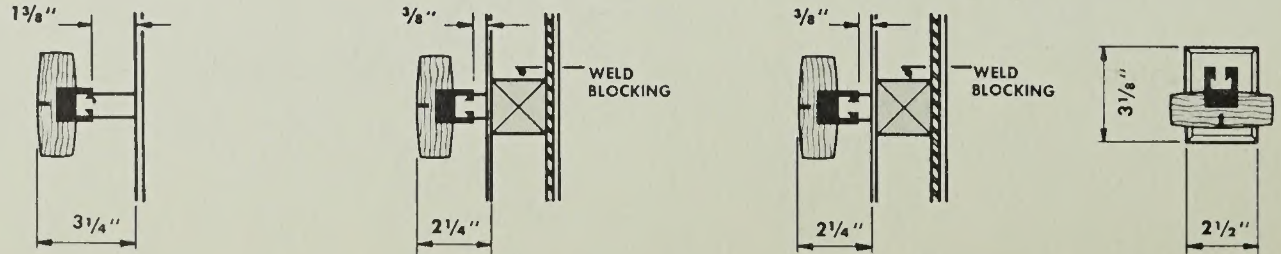

5 5/8" FIXED
3/8"
4"
6"

STARTING POST


FLANGE
FL-179
LEVEL
FL-179 8
RAKE
2" MIN.
4" MIN.

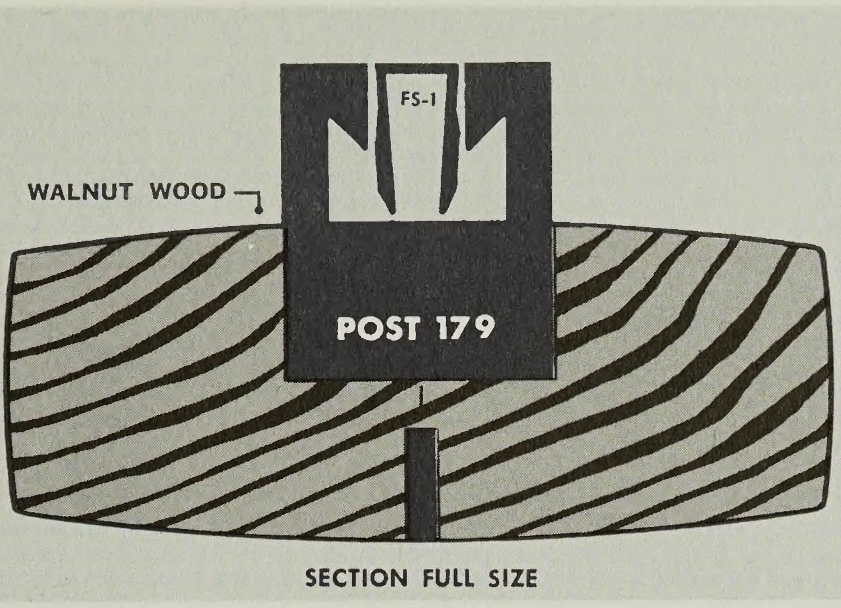
TM-7 MOUNTING

ALTERNATE MOUNTINGS
SCALE 1 1/2" = 1'-0"


1 3/8"
3 1/4"
3/8"
WELD BLOCKING
2 1/4"
3/8"
WELD BLOCKING
2 1/4"
3 1/8"
2 1/2"

RAILWOOD* POST 179

DELUXE-LINE


WALNUT WOOD
FS-1
POST 179

SECTION FULL SIZE

POST SPACING — NOT TO EXCEED 4'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 4'-0" FOR LEVEL RAILING EXCEPT WHEN USING NO. 114 HANDRAIL MAXIMUM POST SPACING 2'-0". REFER TO PAGE 150

STARTING POSTS — INCLUDING THOSE WITH SIDE MOUNTED BRACKETS, SHOULD EXTEND INTO FLOOR FOR ADDED RIGIDITY.

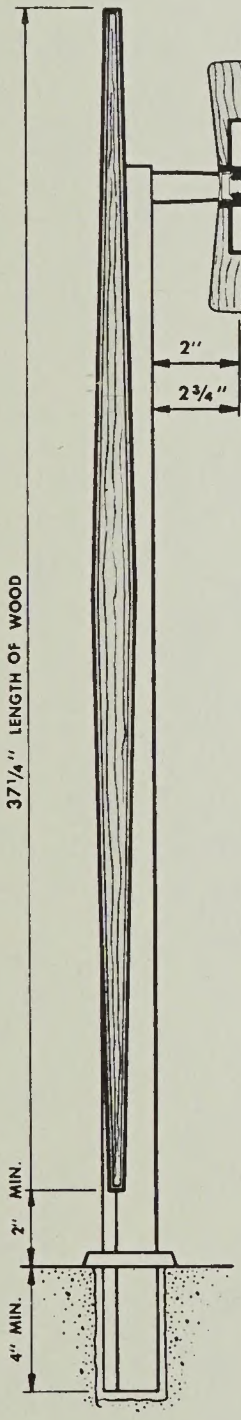
BOXED METAL STRINGERS — SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

CONCRETE STAIRS — USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE.

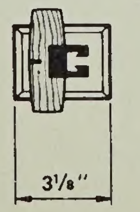
RIGIDITY — THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

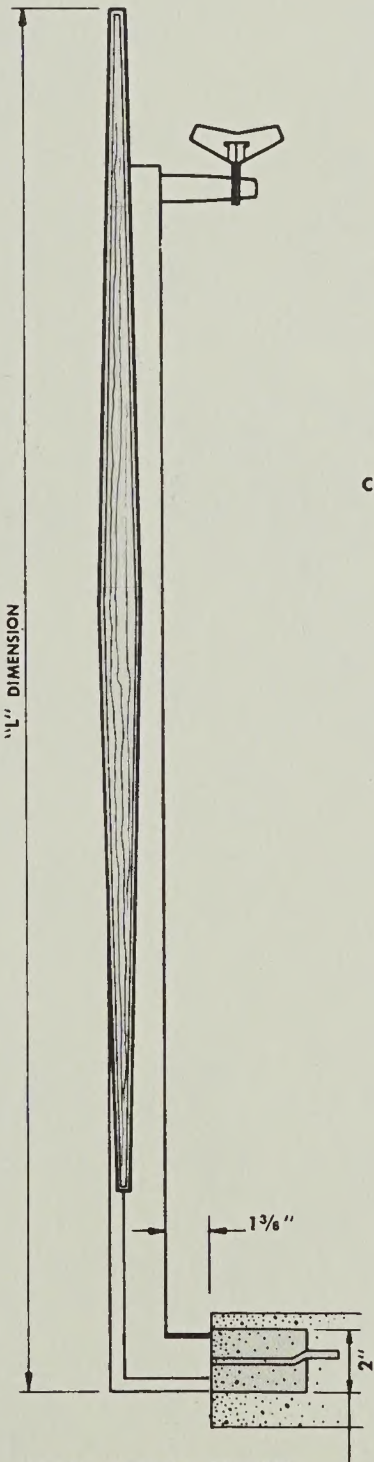
FABRICATION — LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

SERVICE TO ARCHITECT — OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.

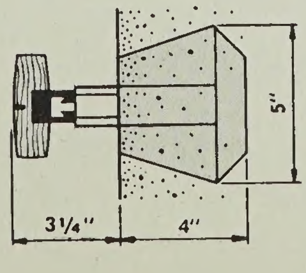

37 1/4" LENGTH OF WOOD
2"
CF-4
2 3/4"
CF-5
2" MIN.
4" MIN.

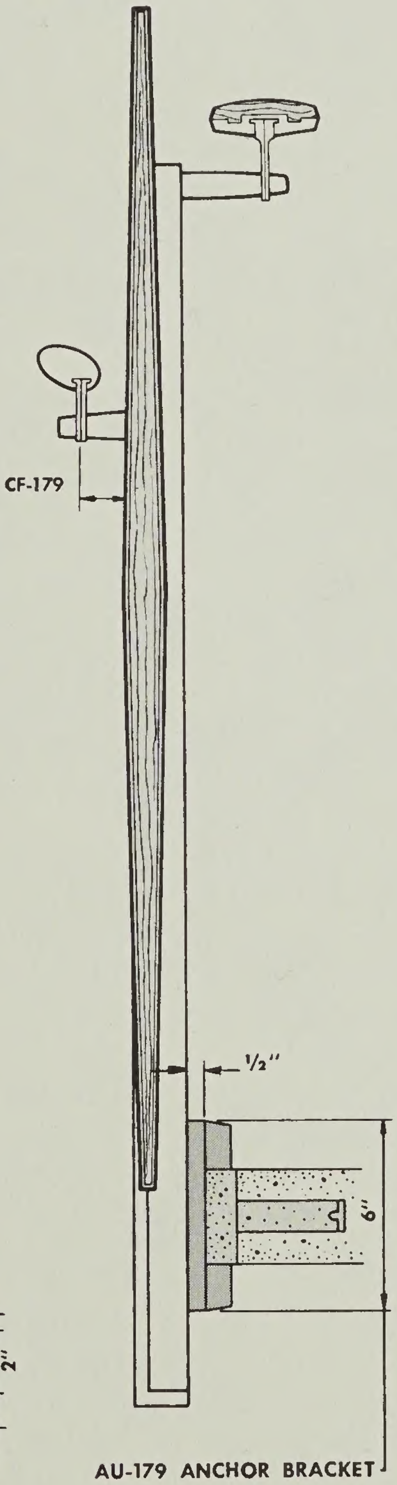
TM-7 MOUNTING



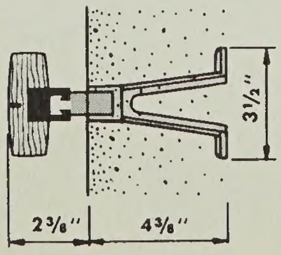

"L" DIMENSION
1 3/8"
2"

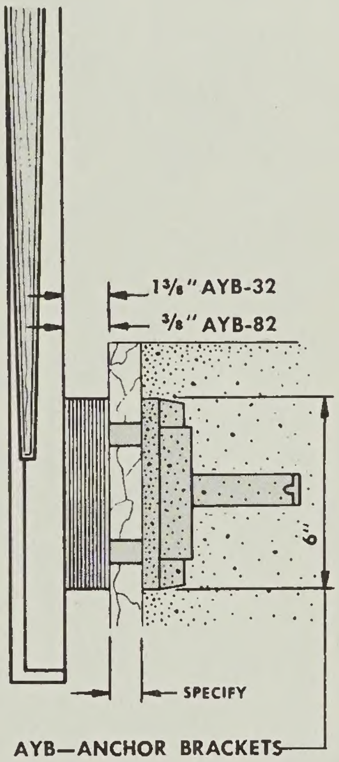
AB-179 ANCHOR BRACKET



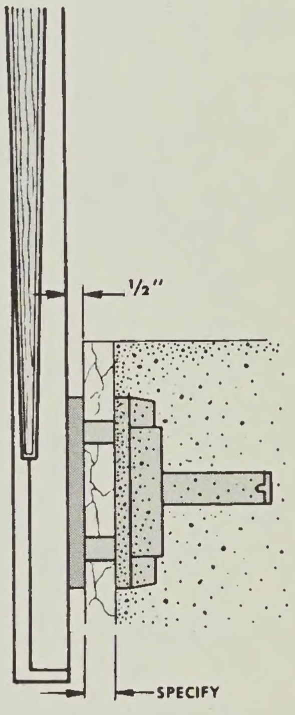


AU-179 ANCHOR BRACKET

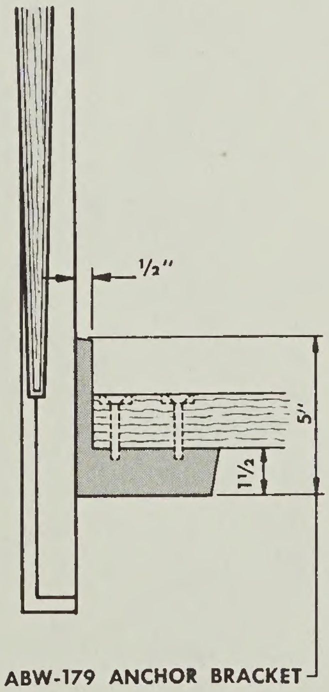



1 3/8" AYB-32
3/8" AYB-82
6"
SPECIFY

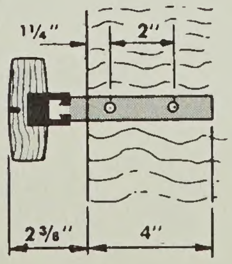
AYB—ANCHOR BRACKETS

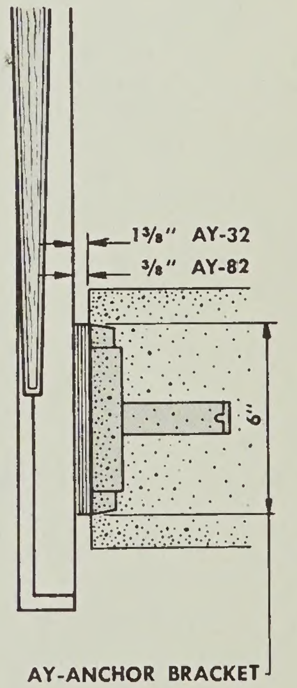


AUB-179 ANCHOR BRACKET

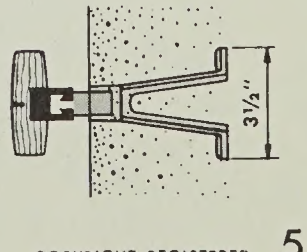


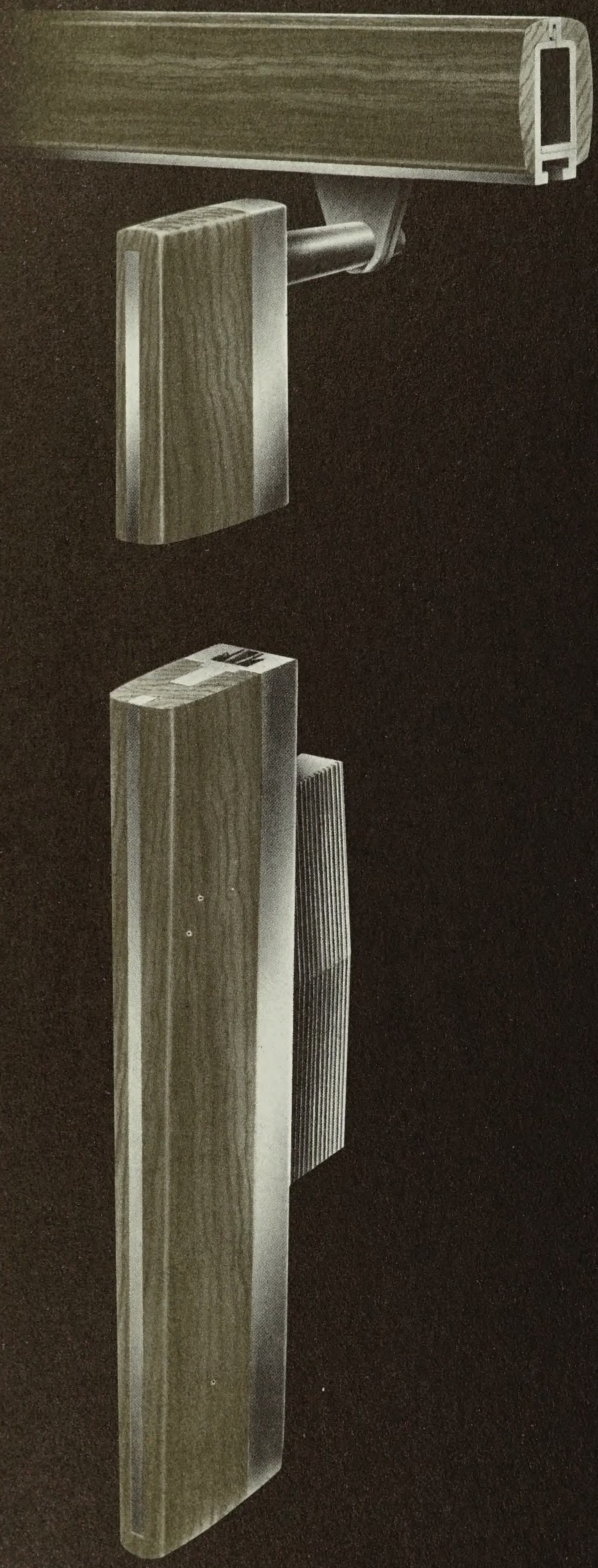
ABW-179 ANCHOR BRACKET

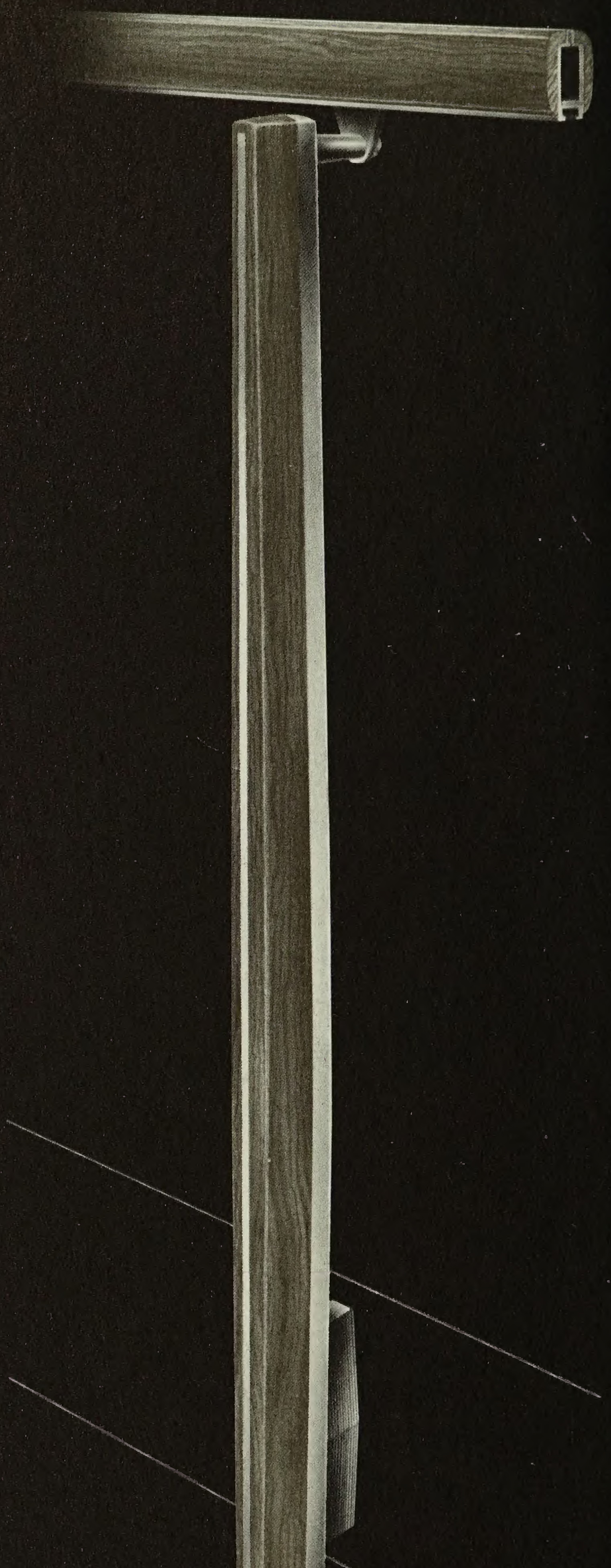



1 3/8" AY-32
3/8" AY-82
6"

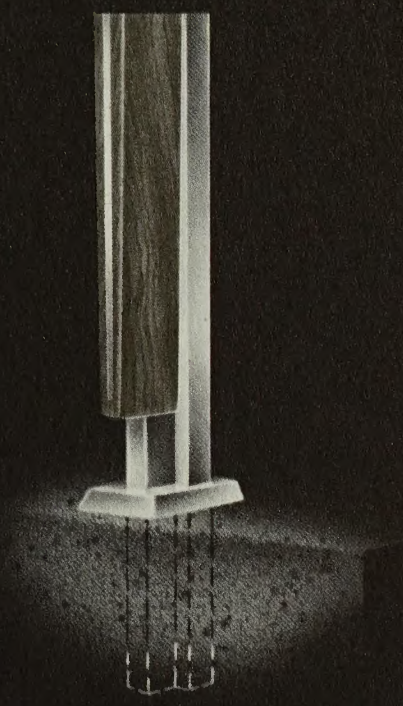
AY-ANCHOR BRACKET

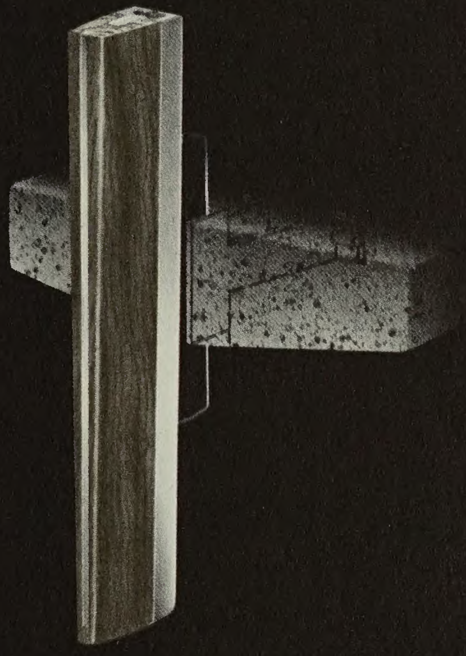


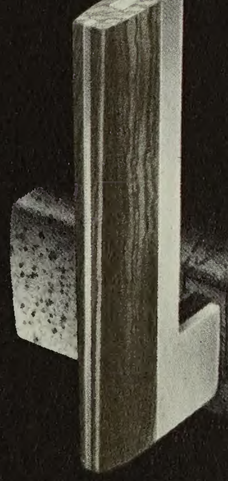




BLUMCRAFT'S ORIGINAL DESIGNS AND STRUCTURES ARE FULLY COVERED BY PATENTS AND PENDING PATENT APPLICATIONS IN THE UNITED STATES AND CANADA.







NEW RAILWOOD* POST 320 SCULPTURED WOOD POST WITH ALUMINUM SUB-STRUCTURE. SOLID AMERICAN WALNUT WOOD WITH A HAND RUBBED OIL FINISH.

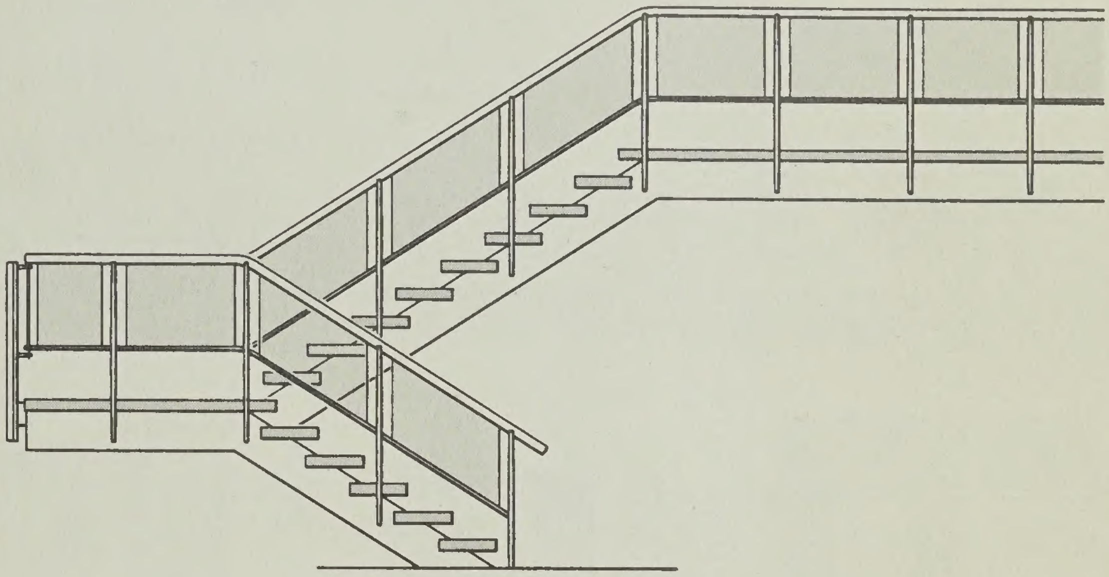


FIG. 660

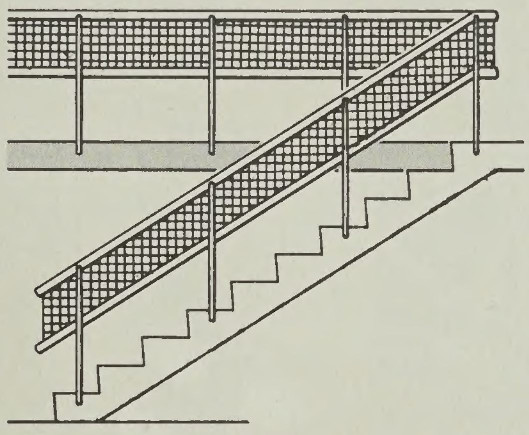


FIG. 661

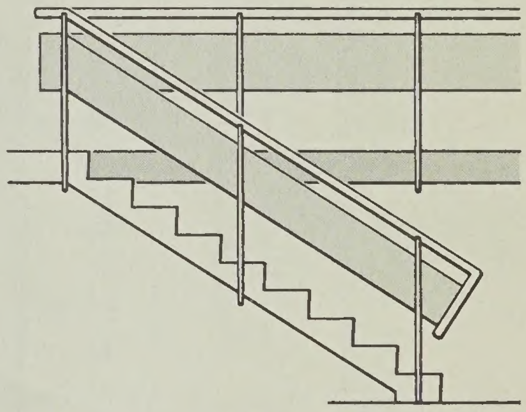


FIG. 664

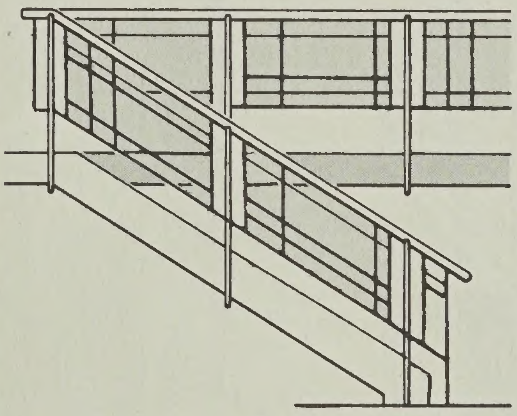


FIG. 662

DETAILS

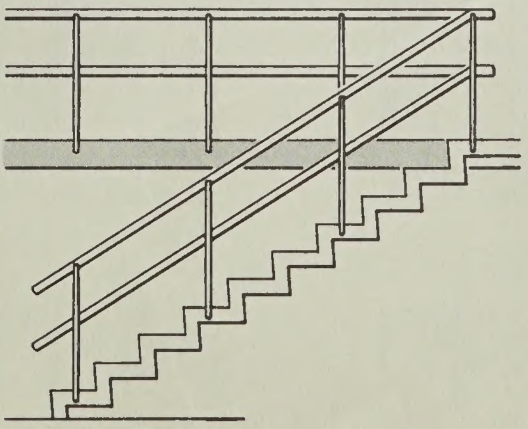


FIG. 663

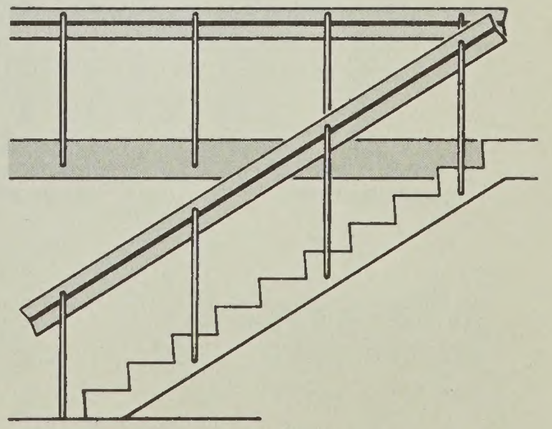
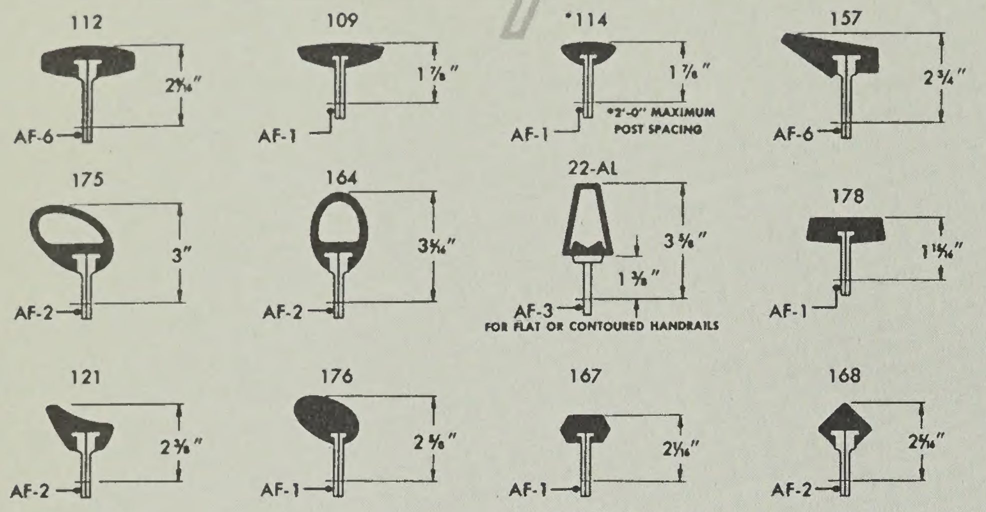
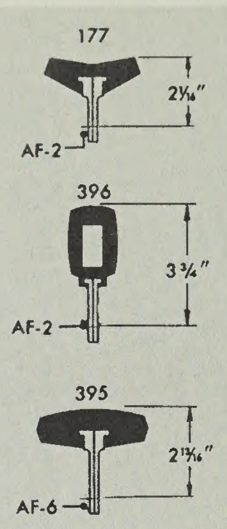


FIG. 665

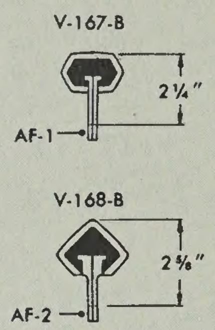
* TRADEMARK


112
2 9/16"
AF-6
109
1 7/8"
AF-1
*114
1 7/8"
AF-1
*2'-0" MAXIMUM POST SPACING
157
2 3/4"
AF-6
175
3"
AF-2
164
3 5/16"
AF-2
22-AL
3 3/8"
1 3/8"
AF-3
FOR FLAT OR CONTOURED HANDRAILS
178
1 15/16"
AF-1
121
2 3/8"
AF-2
176
2 5/8"
AF-1
167
2 1/16"
AF-1
168
2 9/16"
AF-2

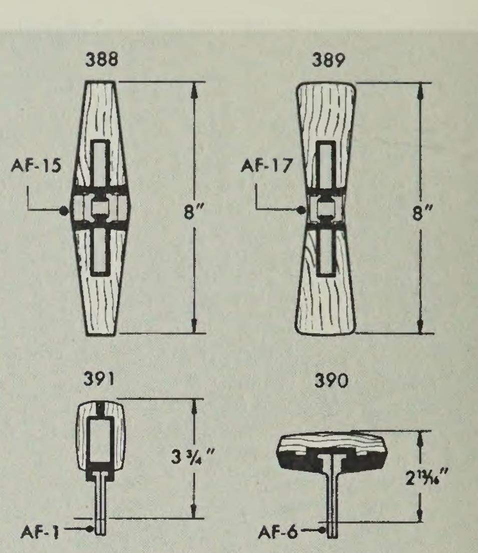

177
2 1/16"
AF-2
396
3 3/4"
AF-2
395
2 13/16"
AF-6

ALUMINUM RAILS

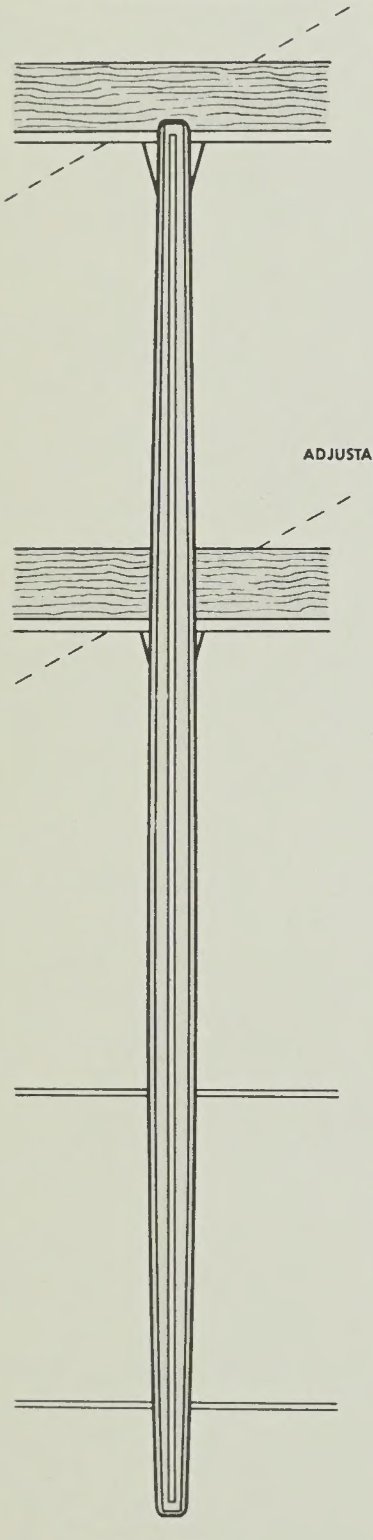
FULL SIZE SECTIONS
PAGES — 146-149


V-167-B
2 1/4"
AF-1
V-168-B
2 5/8"
AF-2

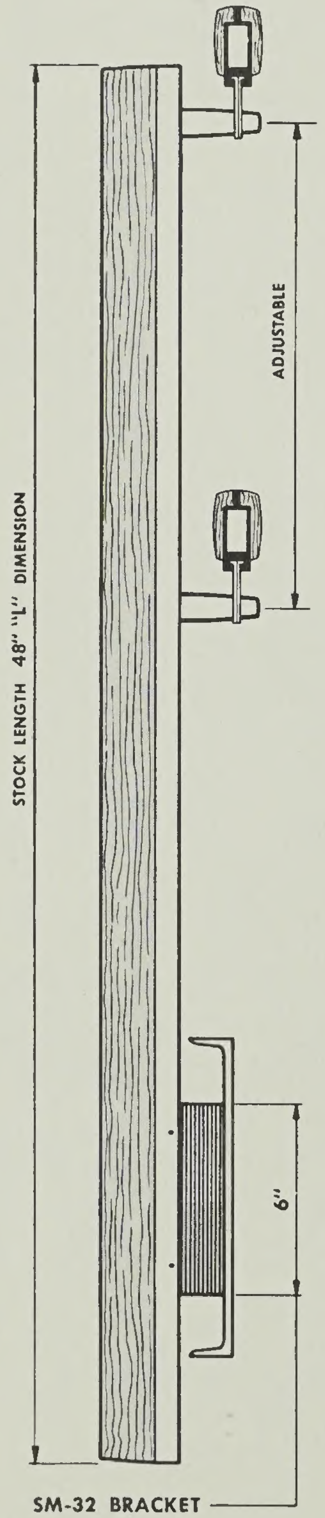
VINYL RAILS


388
AF-15
8"
389
AF-17
8"
391
3 3/4"
AF-1
390
2 13/16"
AF-6

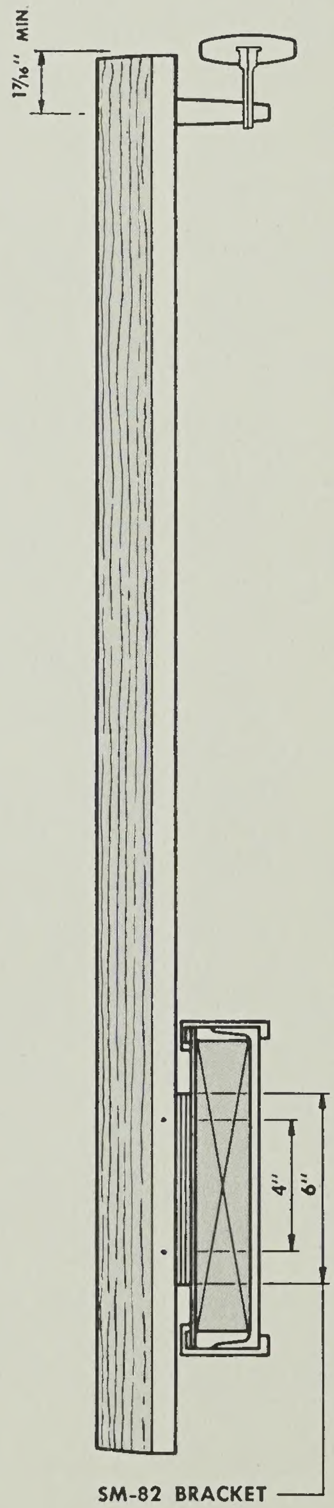
WOOD RAILS


ADJUSTABLE

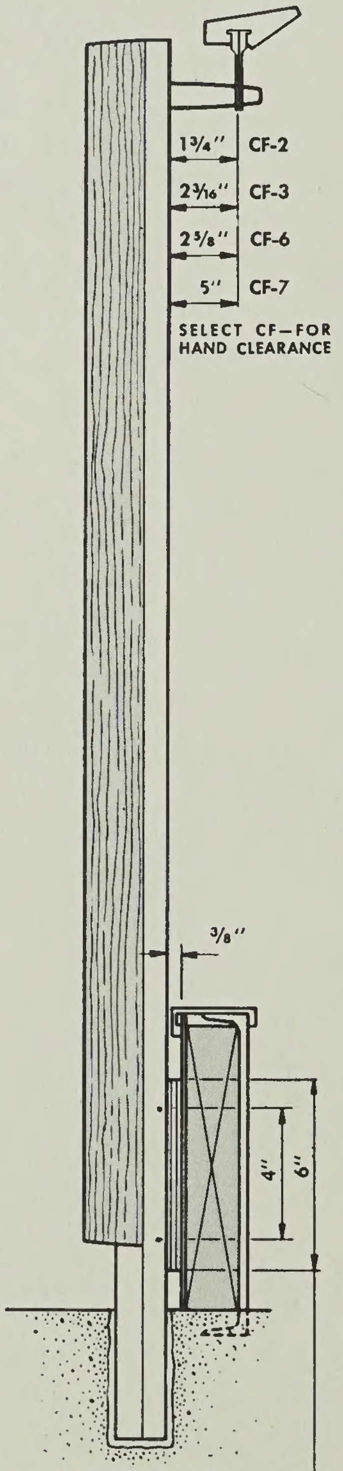
SIDE ELEVATION


STOCK LENGTH 48" "L" DIMENSION
ADJUSTABLE
6"

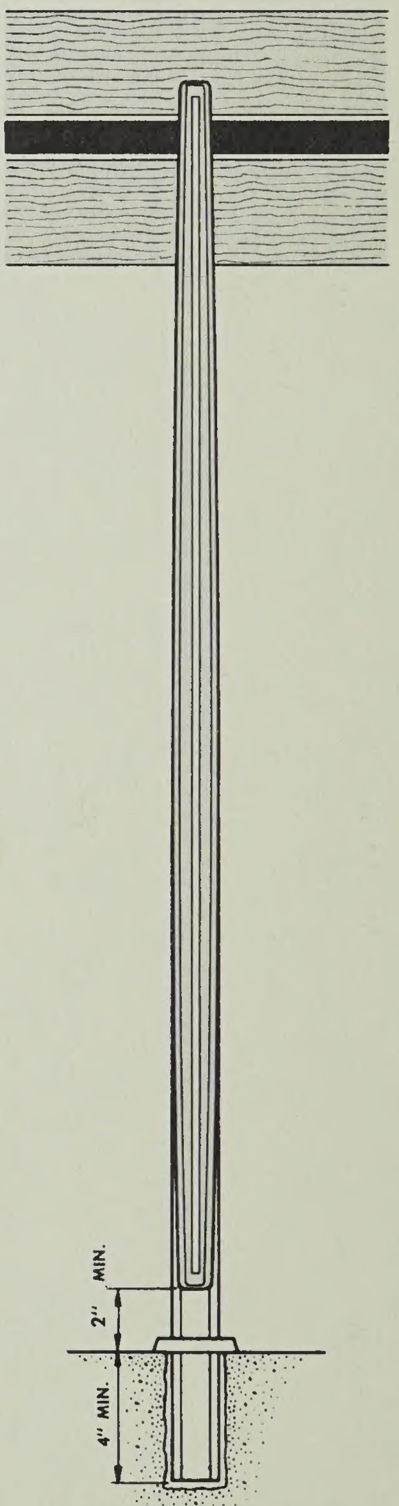
SM-32 BRACKET



SM-82 BRACKET

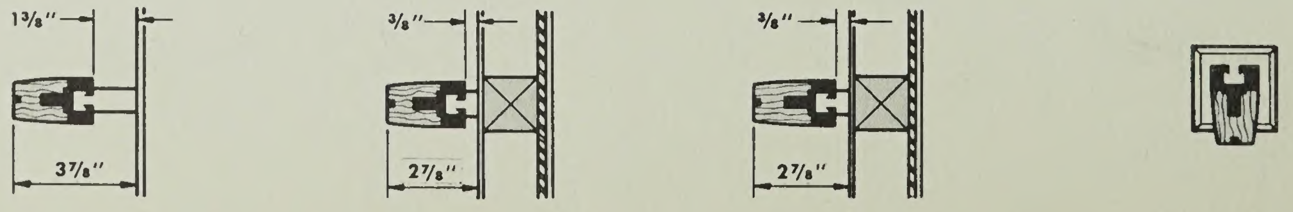

1 3/4" CF-2
2 3/16" CF-3
2 5/8" CF-6
5" CF-7
SELECT CF—FOR HAND CLEARANCE
3/8"
4"
6"

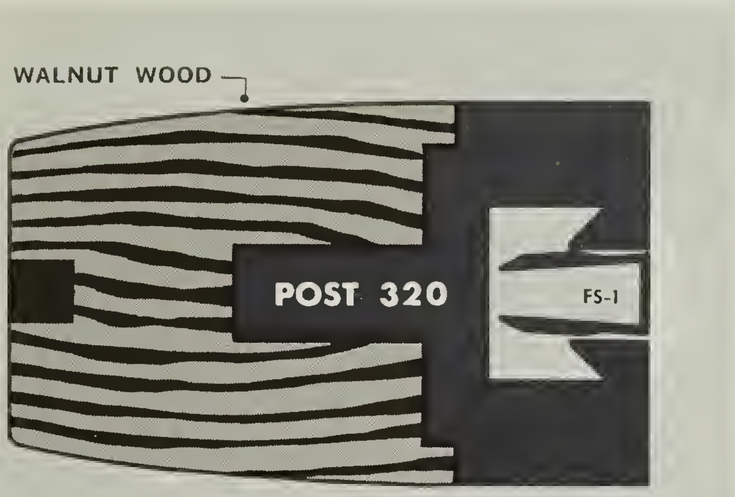
STARTING POST



TM-8 MOUNTING

ALTERNATE MOUNTINGS
SCALE 1½" = 1'-0"


1 3/8"
3 7/8"
3/8"
2 7/8"
3/8"
2 7/8"


WALNUT WOOD
POST 320
FS-1

SECTION FULL SIZE

POST SPACING — NOT TO EXCEED 4'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 4'-0" FOR LEVEL RAILING. REFER TO PAGE 150

STARTING POSTS — INCLUDING THOSE WITH SIDE MOUNTED BRACKETS, SHOULD EXTEND INTO FLOOR FOR ADDED RIGIDITY.

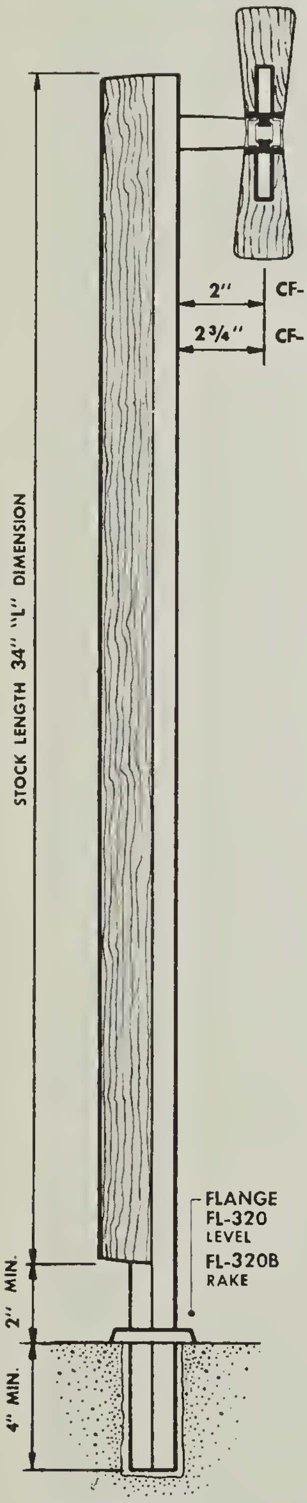
BOXED METAL STRINGERS — SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

CONCRETE STAIRS — USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE . . . ELIMINATES EXPANSION SHIELDS.

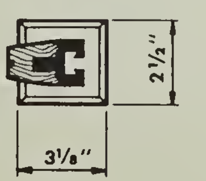
RIGIDITY — THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

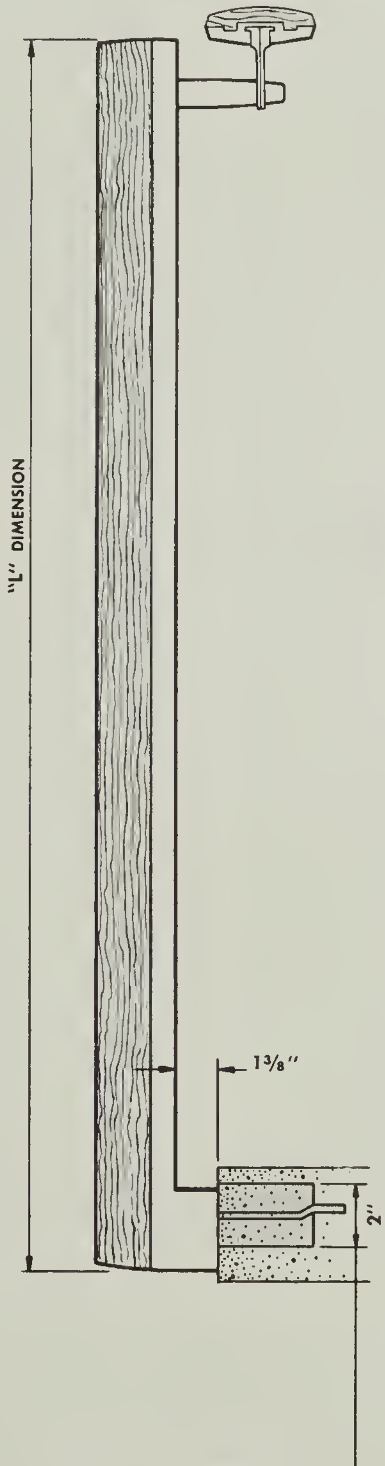
FABRICATION — LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

SERVICE TO ARCHITECT — OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.

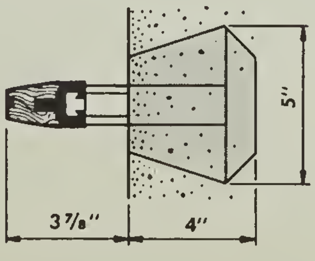

STOCK LENGTH 34" "L" DIMENSION
2" CF-4
2¾" CF-5
FLANGE
FL-320
LEVEL
FL-320B
RAKE
2" MIN.
4" MIN.

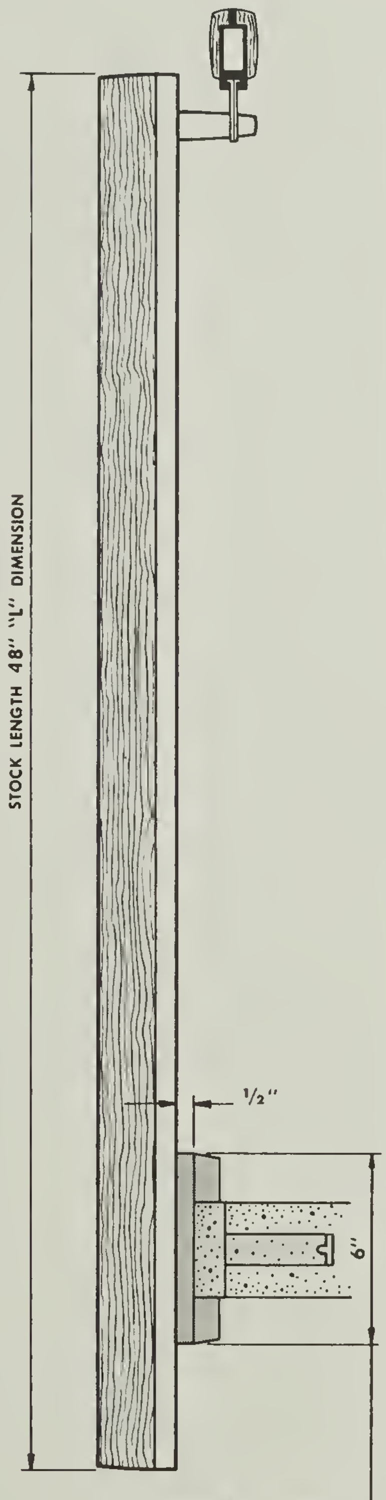
GROUTED POST
TM-8 MOUNTING



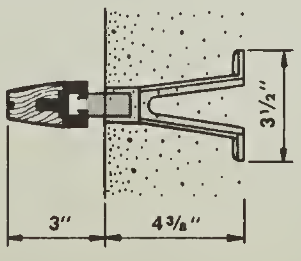

"L" DIMENSION
1⅜"
2"

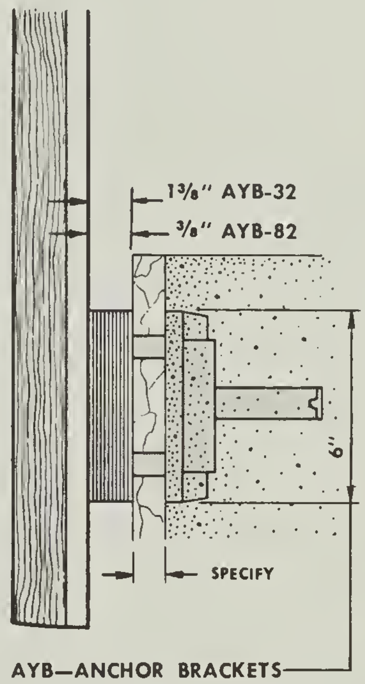
AB-320 ANCHOR BRACKET



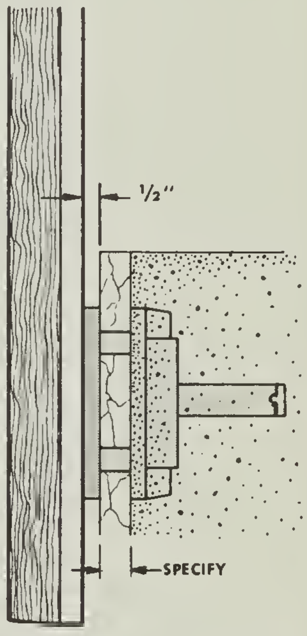

STOCK LENGTH 48" "L" DIMENSION
½"
6"

AU-320 ANCHOR BRACKET

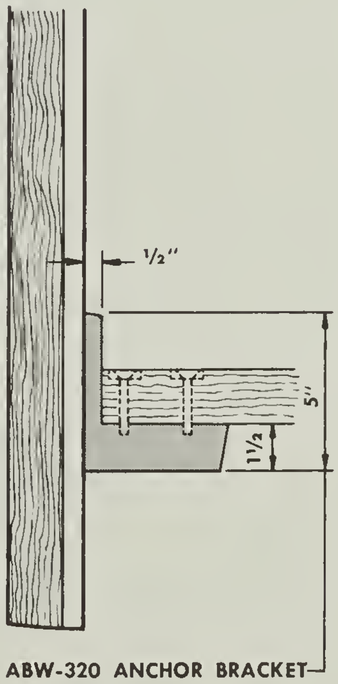



1⅜" AYB-32
⅜" AYB-82
6"
SPECIFY

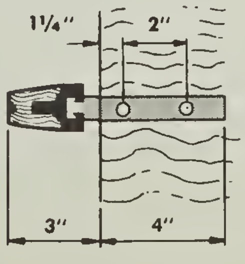
AYB—ANCHOR BRACKETS

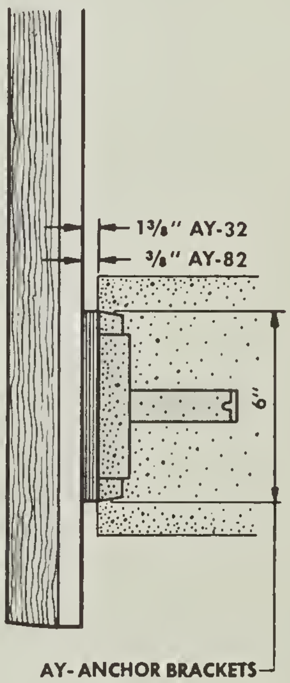


AUB-320 ANCHOR BRACKET

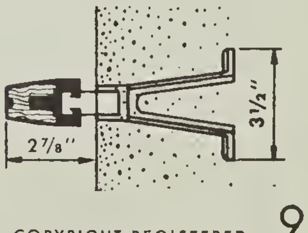


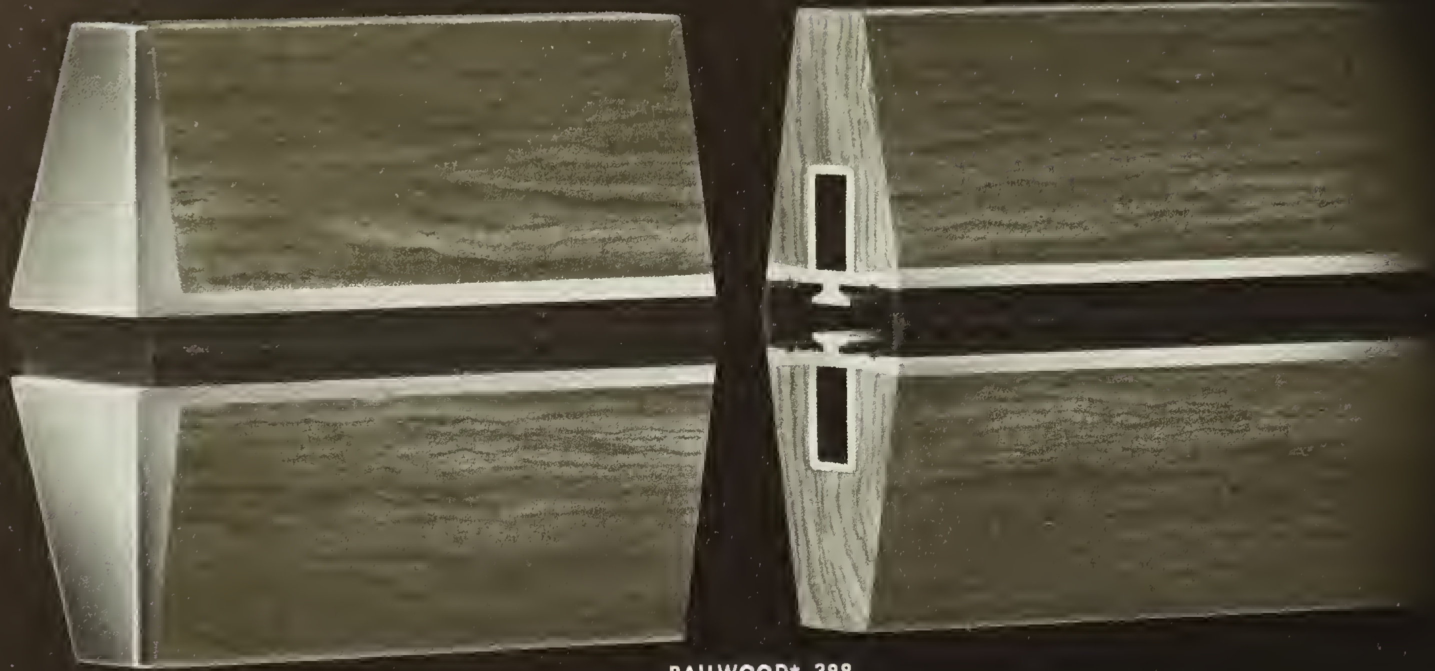
ABW-320 ANCHOR BRACKET



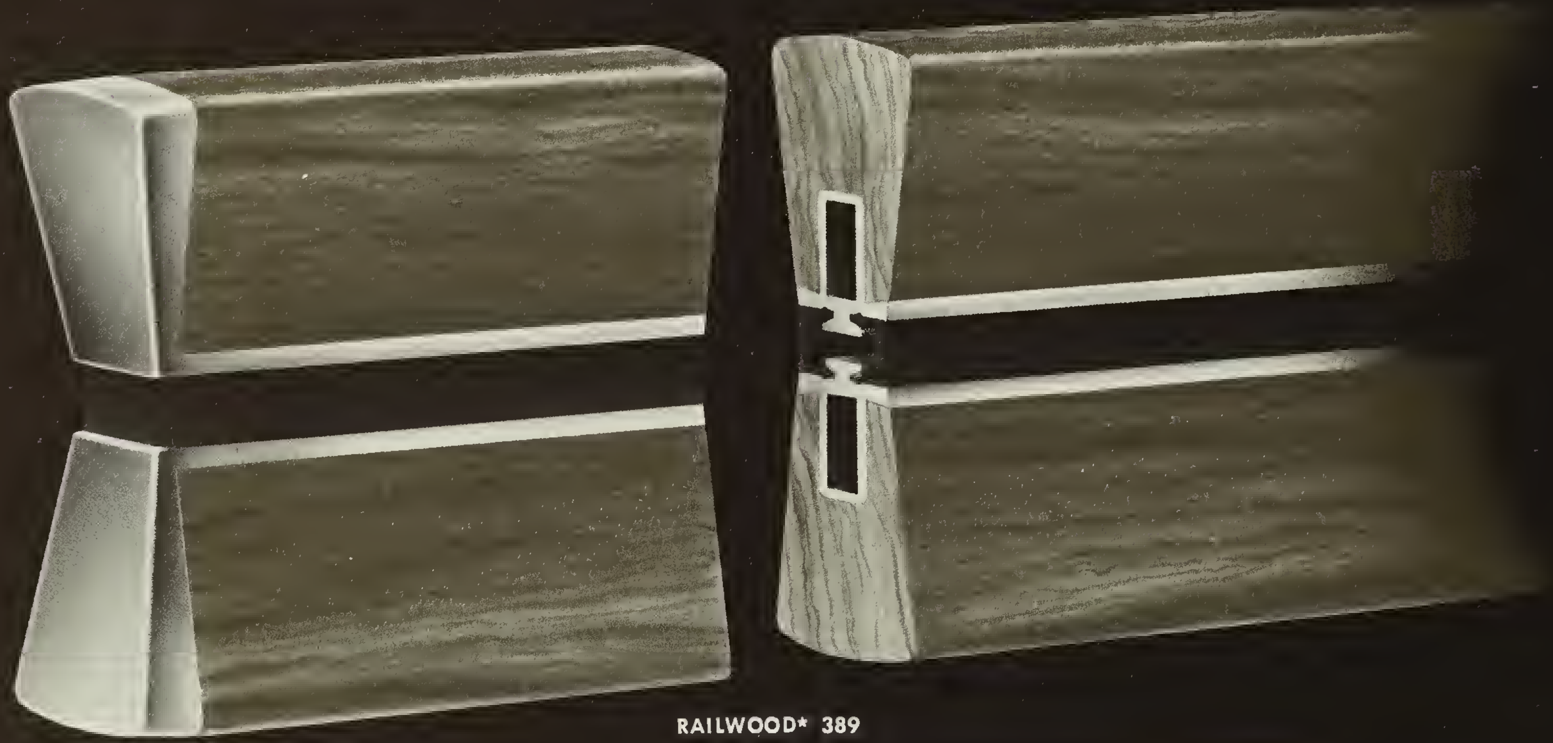

1⅜" AY-32
⅜" AY-82
6"

AY-ANCHOR BRACKETS

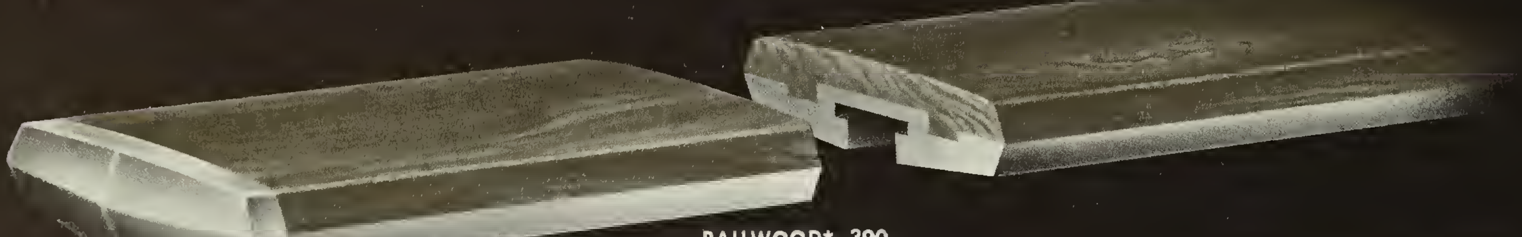




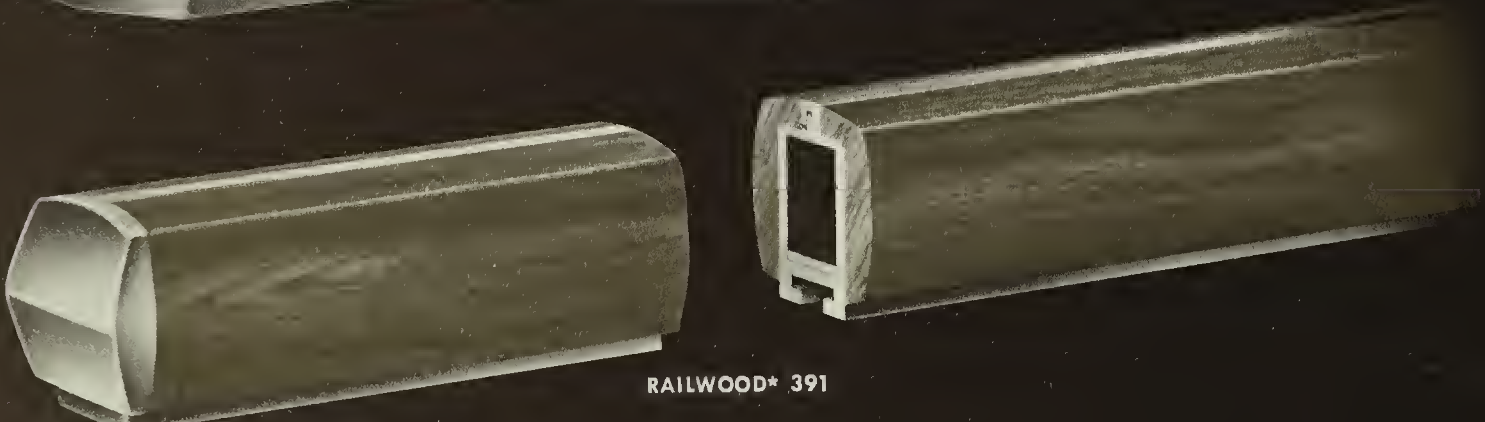
RAILWOOD* 388



RAILWOOD* 389

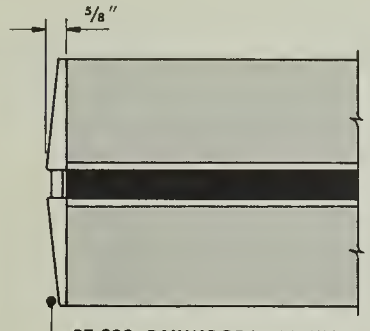


RAILWOOD* 390

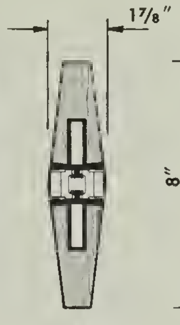


RAILWOOD* 391

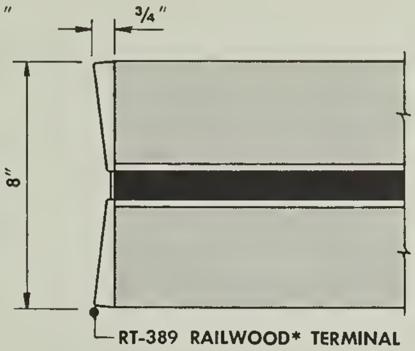
*Trade Mark



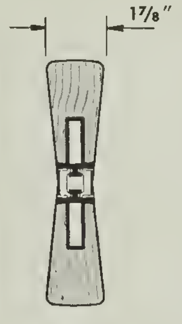
RT-388 RAILWOOD* TERMINAL



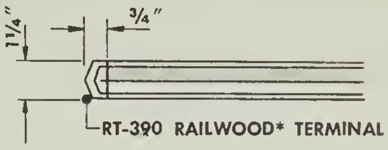
388



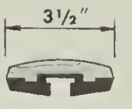
RT-389 RAILWOOD* TERMINAL



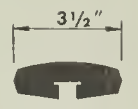
389



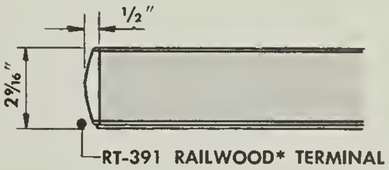
RT-390 RAILWOOD* TERMINAL



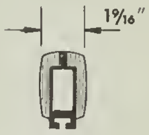
390



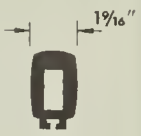
395



RT-391 RAILWOOD* TERMINAL



391



396

SOLID WALNUT WOOD HANDRAILS FURNISHED WITH ALUMINUM SUB-STRUCTURE AS AN INTEGRAL UNIT BY BLUMCRAFT, TO REQUIRED LENGTHS. WALNUT FURNISHED IN A HAND RUBBED OIL FINISH; ALUMINUM IN A SATIN FINISH.

SCALE 1 1/2"=1'-0"

SEE PAGES 146-149 FOR FULL SIZE SECTIONS

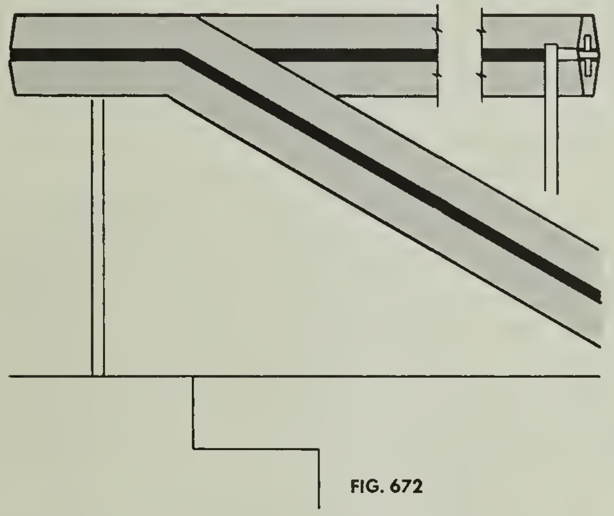


FIG. 672

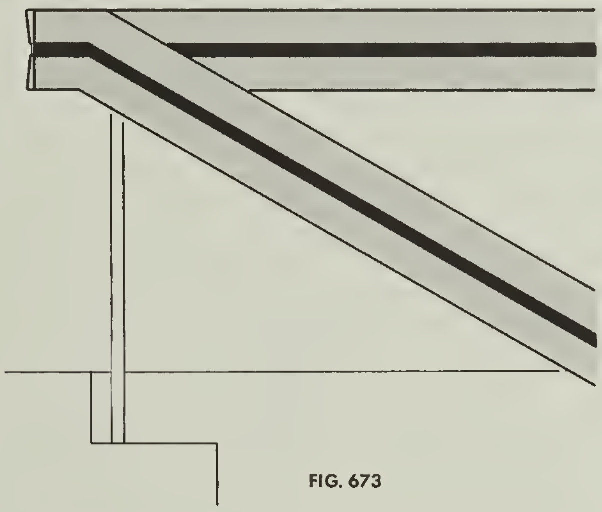


FIG. 673

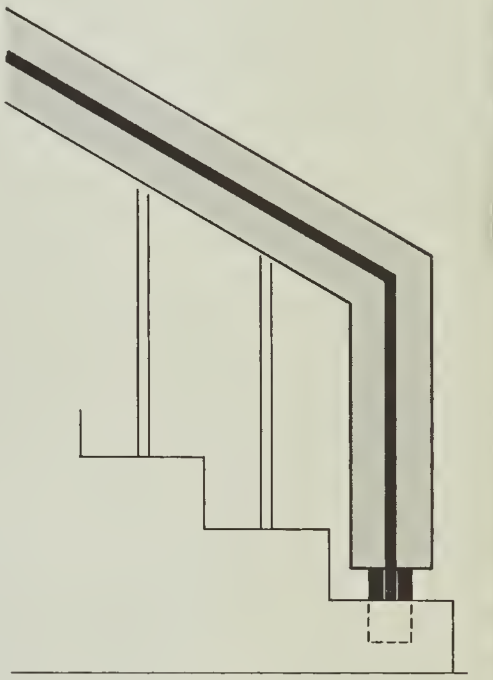
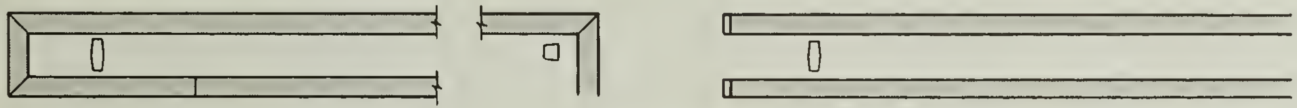


FIG. 676



PLANS

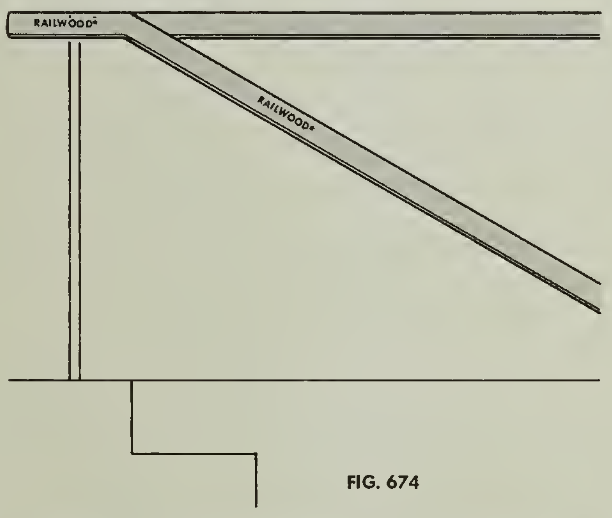

RAILWOOD*
RAILWOOD*

FIG. 674

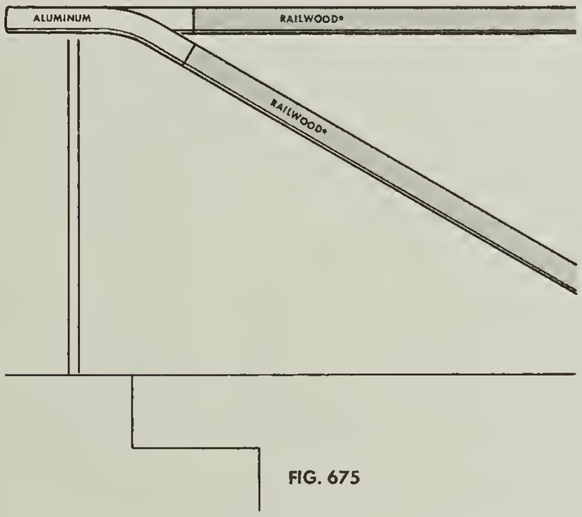

ALUMINUM
RAILWOOD*
RAILWOOD*

FIG. 675

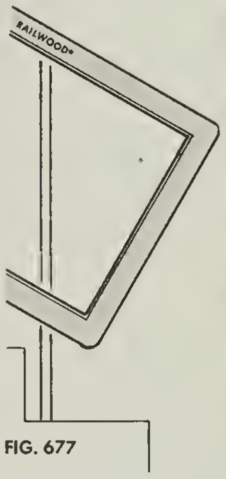


FIG. 677

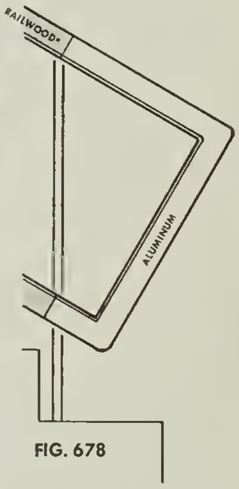
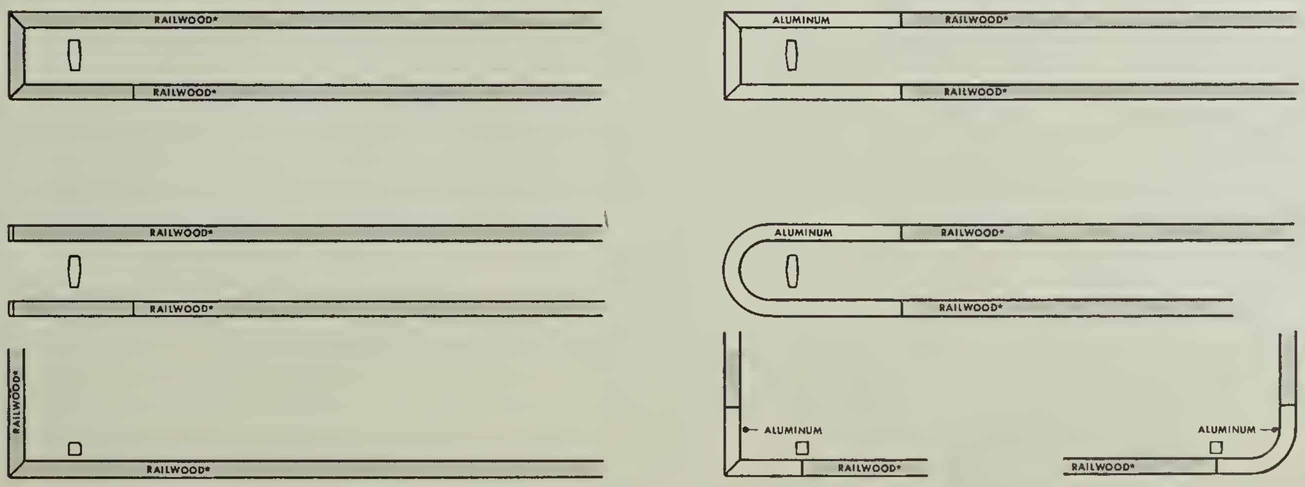

RAILWOOD*
ALUMINUM

FIG. 678


RAILWOOD*
RAILWOOD*
RAILWOOD*
RAILWOOD*
RAILWOOD*
RAILWOOD*
ALUMINUM
RAILWOOD*
RAILWOOD*
ALUMINUM
RAILWOOD*
RAILWOOD*
ALUMINUM
RAILWOOD*
ALUMINUM
RAILWOOD*
ALUMINUM

PLANS

RAIL BENDS REFER TO PAGE 96

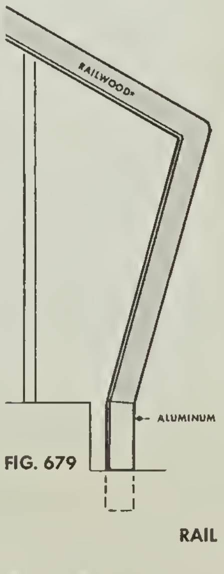

RAILWOOD*
ALUMINUM

FIG. 679

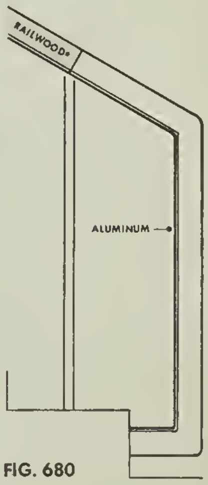

RAILWOOD*
ALUMINUM

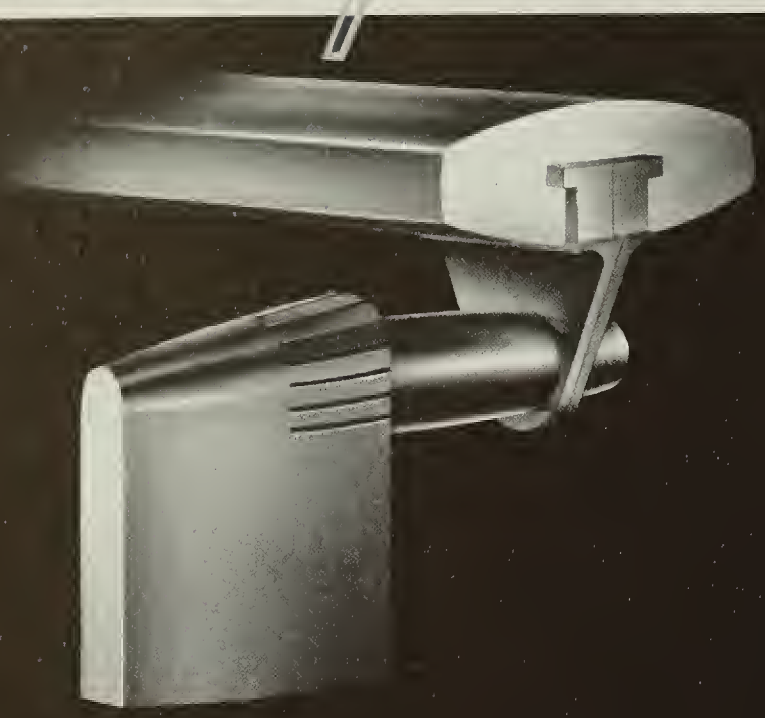
FIG. 680

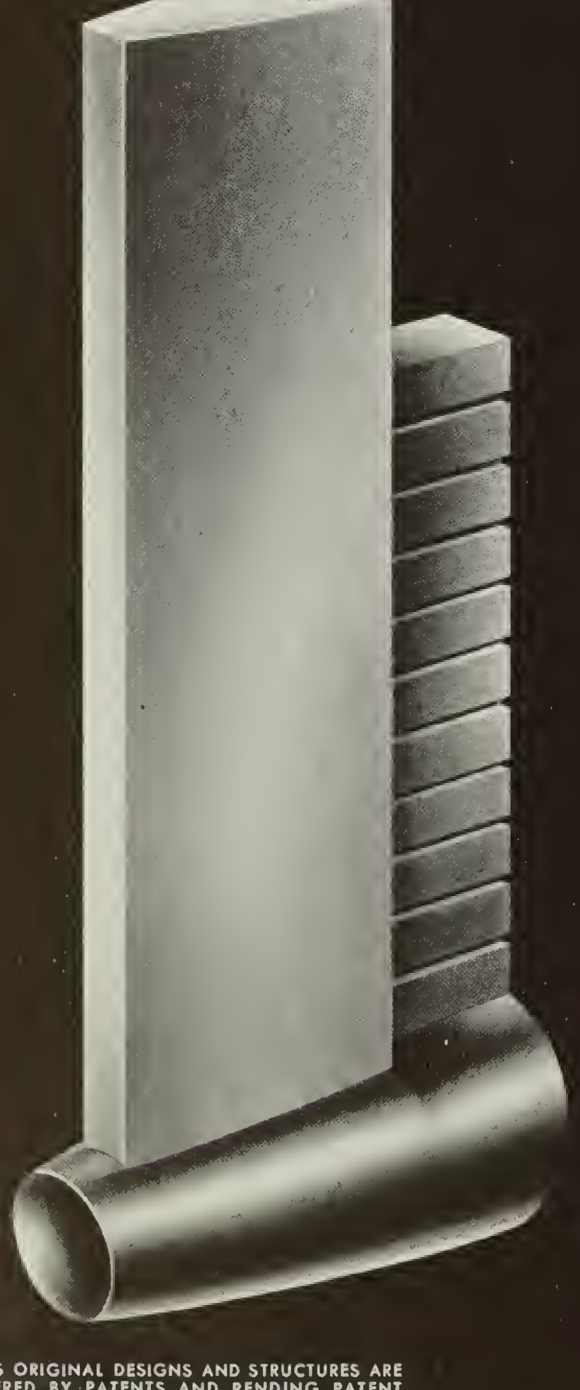
RAIL STARTS

APPLICATIONS OF RAILWOOD*

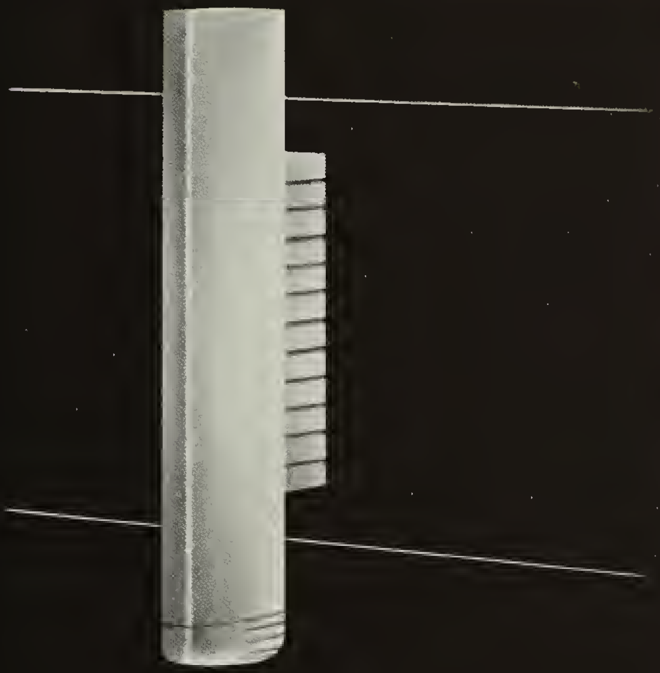
SCALE 1/2"=1'-0"

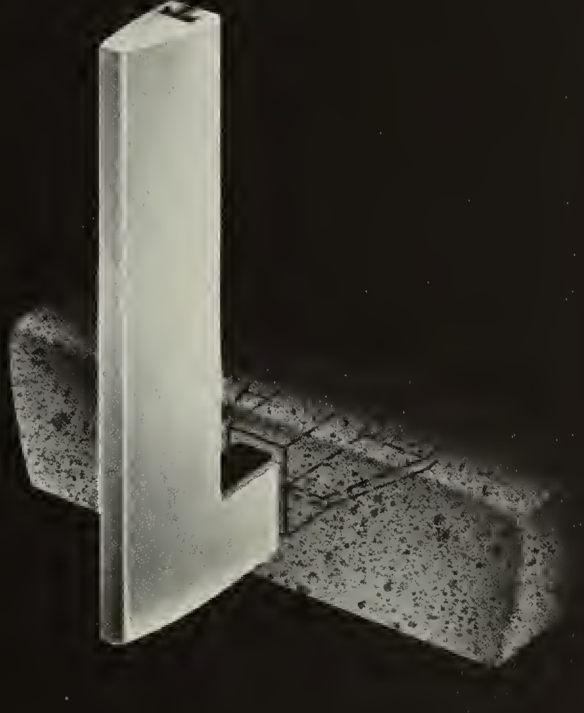
*TRADEMARK

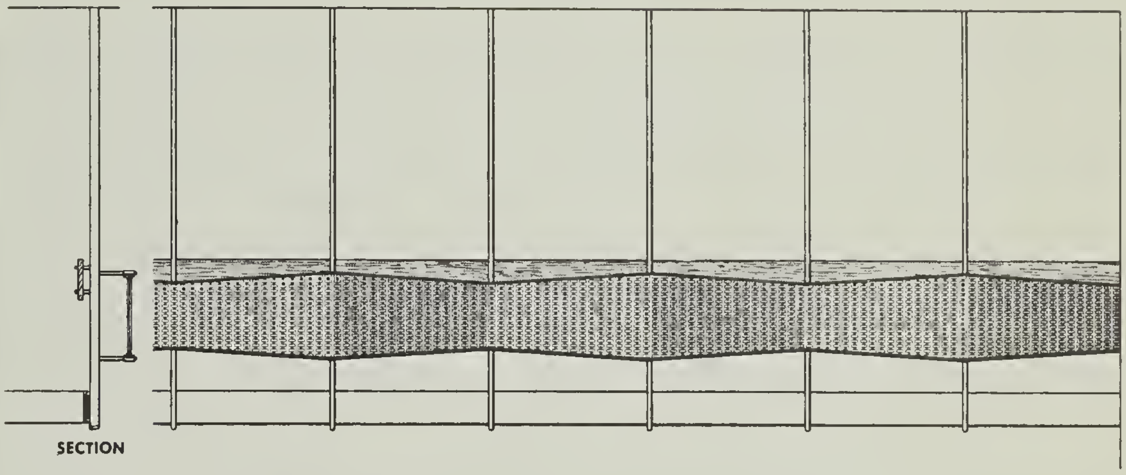




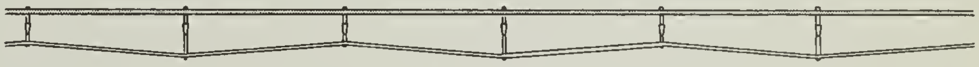
SUGGESTED APPLICATIONS



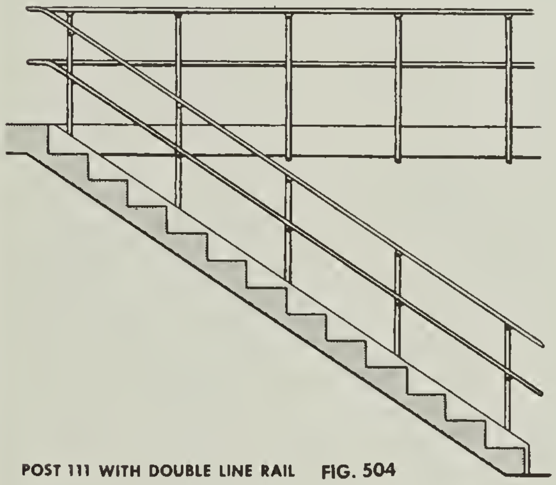




POST 111 WITH GRILL-O-METRIC PANELS FIG. 503



PLAN FIG. 503



POST 111 WITH DOUBLE LINE RAIL FIG. 504

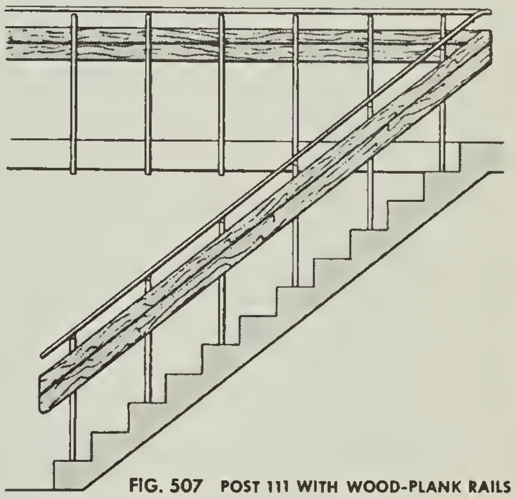
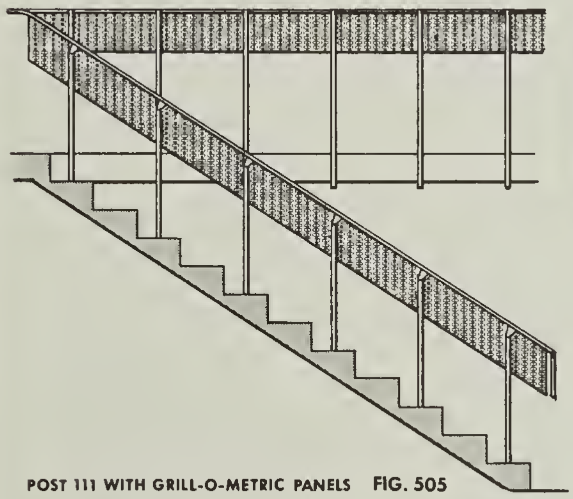
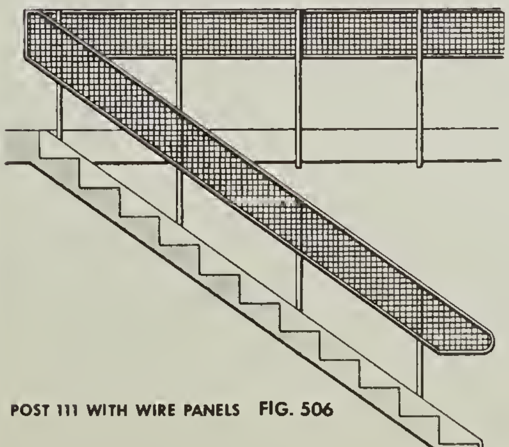


FIG. 507 POST 111 WITH WOOD-PLANK RAILS

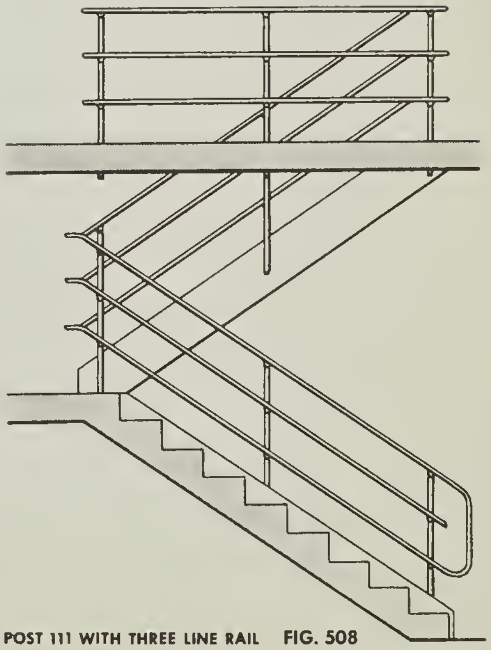


POST 111 WITH GRILL-O-METRIC PANELS FIG. 505

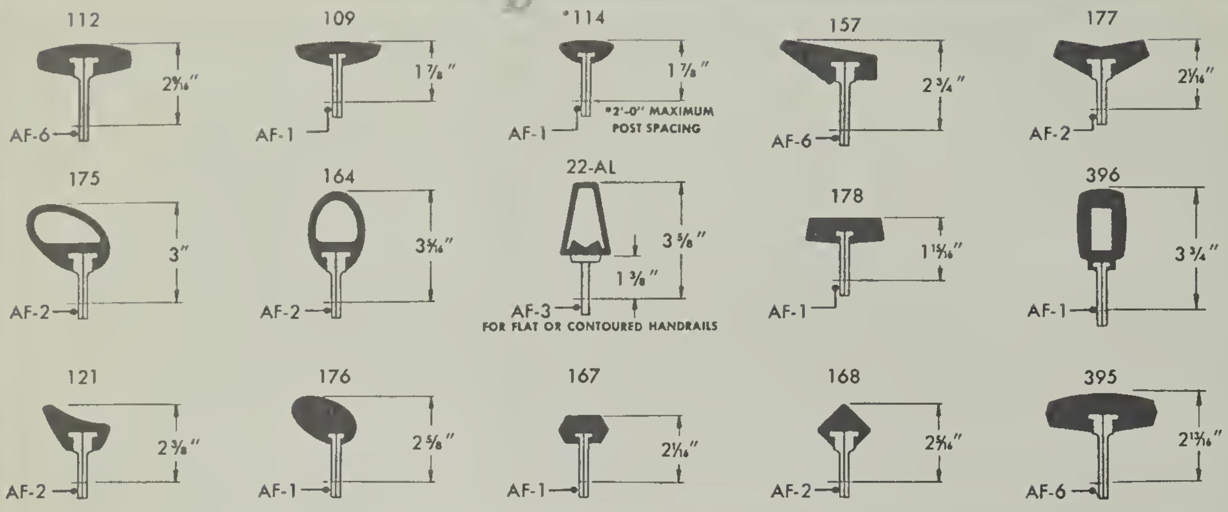
DETAILS



POST 111 WITH WIRE PANELS FIG. 506

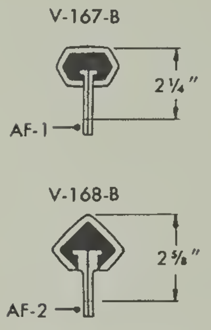


POST 111 WITH THREE LINE RAIL FIG. 508

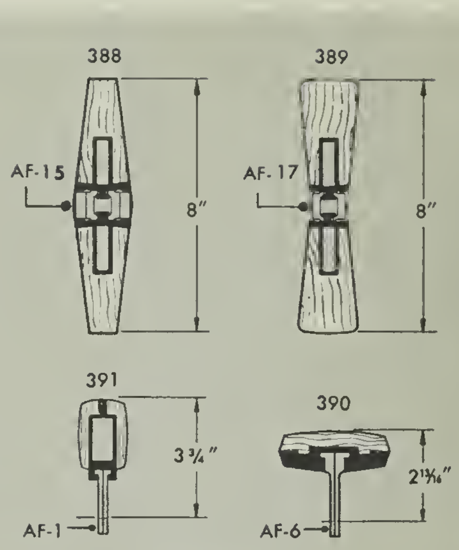

112
2⁹⁄₁₆"
AF-6
109
1⅞"
AF-1
*114
1⅞"
AF-1
*2'-0" MAXIMUM POST SPACING
157
2¾"
AF-6
177
2⁵⁄₁₆"
AF-2
175
3"
AF-2
164
3⁵⁄₁₆"
AF-2
22-AL
3⅝"
1⅜"
AF-3
FOR FLAT OR CONTOURED HANDRAILS
178
1¹⁵⁄₁₆"
AF-1
396
3¾"
AF-1
121
2⅜"
AF-2
176
2⅝"
AF-1
167
2¹⁄₁₆"
AF-1
168
2⁵⁄₁₆"
AF-2
395
2¹³⁄₁₆"
AF-6

ALUMINUM RAILS

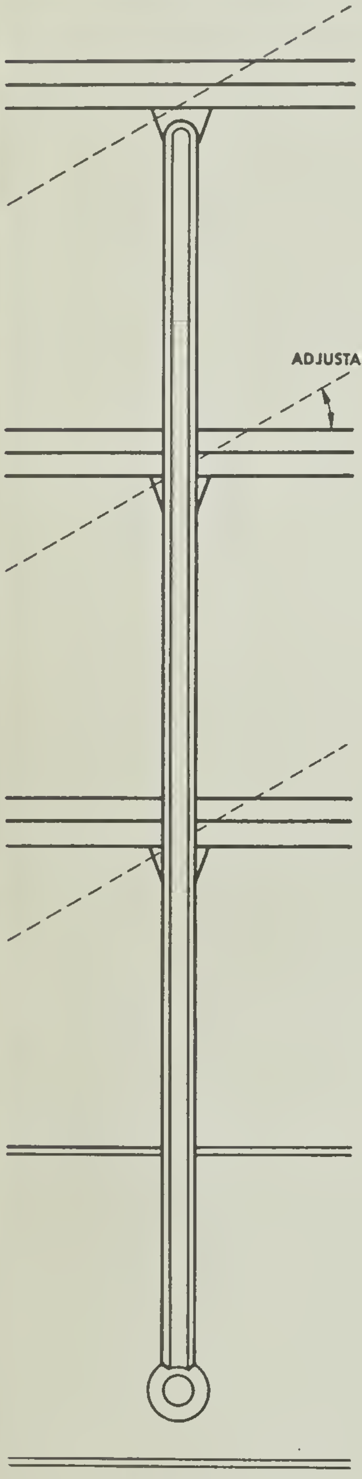
FULL SIZE SECTIONS
PAGES — 146-149


V-167-B
2¼"
AF-1
V-168-B
2⅝"
AF-2

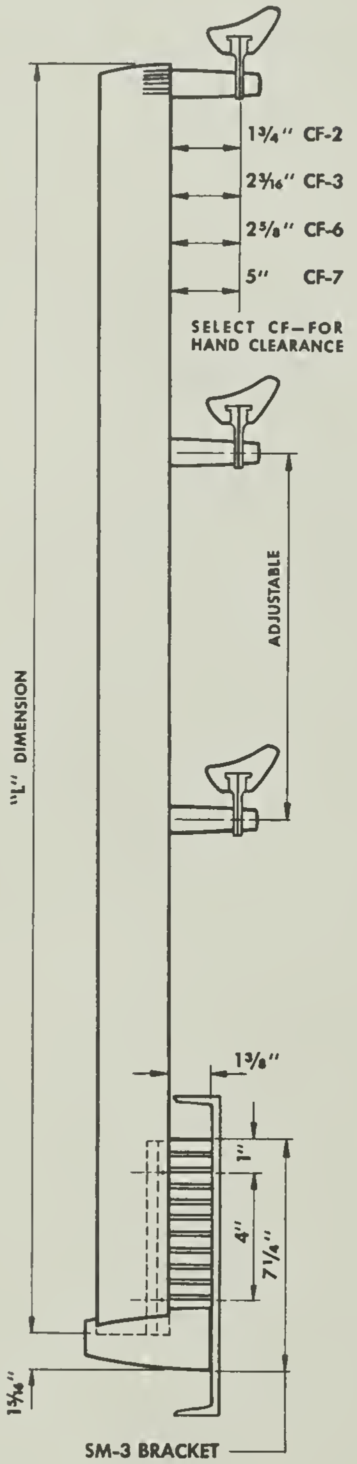
VINYL RAILS


388
AF-15
8"
389
AF-17
8"
391
3¾"
AF-1
390
2¹³⁄₁₆"
AF-6

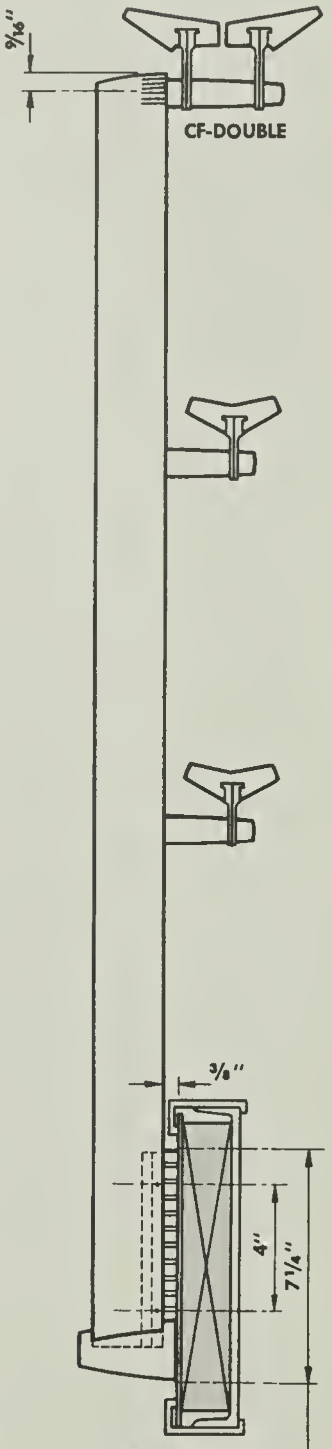
WOOD RAILS


ADJUSTABLE

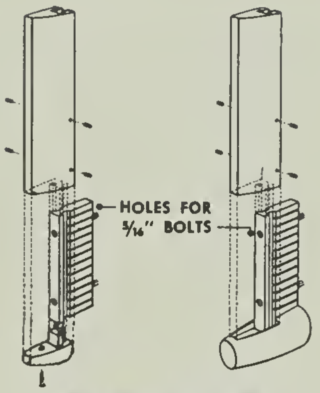
SIDE ELEVATION


1¾" CF-2
2³⁄₁₆" CF-3
2⅝" CF-6
5" CF-7
SELECT CF—FOR HAND CLEARANCE
ADJUSTABLE
"L" DIMENSION
1⅜"
1"
4"
7¼"
1⁵⁄₁₆"

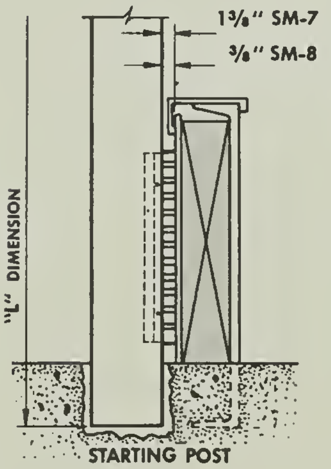
SM-3 BRACKET


⁹⁄₁₆"
CF-DOUBLE
⅜"
4"
7¼"

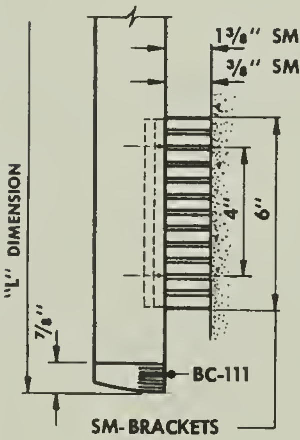
SM-4 BRACKET


HOLES FOR ⁵⁄₁₆" BOLTS

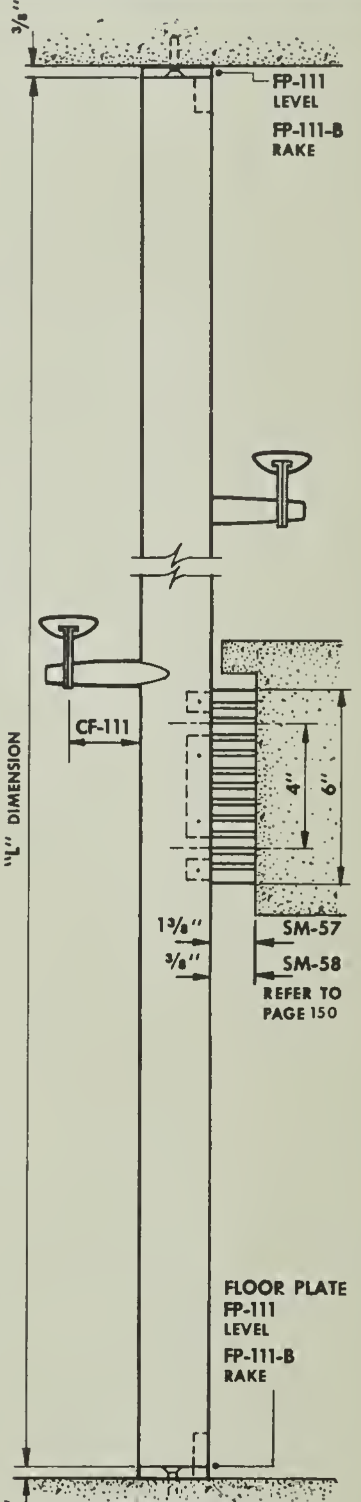
ASSEMBLY OF POST AND BRACKETS


1⅜" SM-7
⅜" SM-8
"L" DIMENSION

STARTING POST


1⅜" SM-7
⅜" SM-8
"L" DIMENSION
4"
6"
⅞"
BC-111

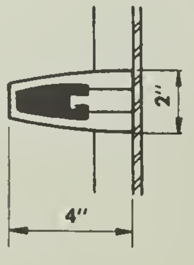
SM-BRACKETS

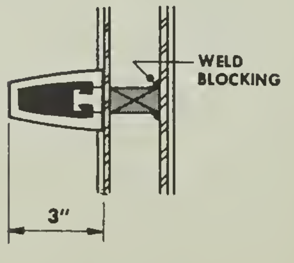

⅜"
FP-111 LEVEL
FP-111-B RAKE
CF-111
"L" DIMENSION
4"
6"
1⅜"
⅜"
SM-57
SM-58
REFER TO PAGE 150
FLOOR PLATE
FP-111 LEVEL
FP-111-B RAKE
⅜"

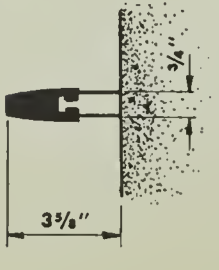
FLOOR TO CEILING

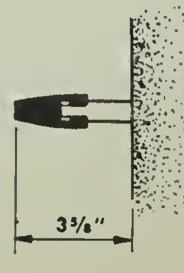
ALTERNATE MOUNTINGS

SCALE 1½" = 1'-0"

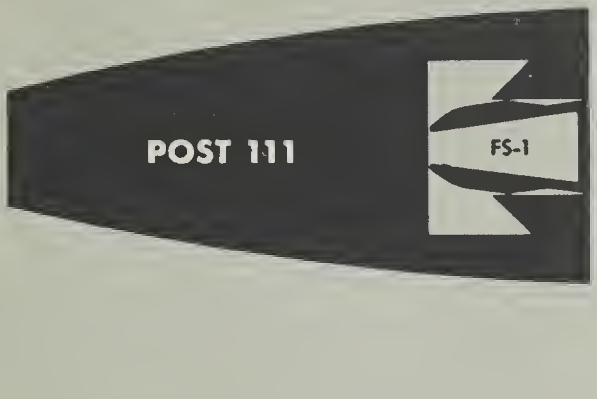



WELD BLOCKING
3"





POST 111


POST 111
FS-1

SECTION FULL SIZE

POST SPACING—NOT TO EXCEED 4'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 4'-0" FOR LEVEL RAILING EXCEPT WHEN USING NO. 114 HANDRAIL MAXIMUM POST SPACING 2'-0". REFER TO PAGE 150

STARTING POSTS—INCLUDING THOSE WITH SIDE MOUNTED BRACKETS, SHOULD EXTEND INTO FLOOR FOR ADDED RIGIDITY.

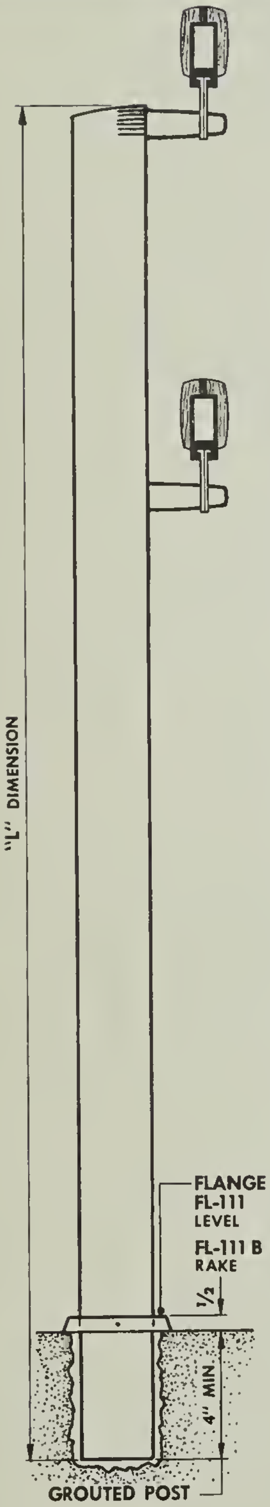
BOXED METAL STRINGERS—SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

CONCRETE STAIRS—USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE . . . ELIMINATES EXPANSION SHIELDS.

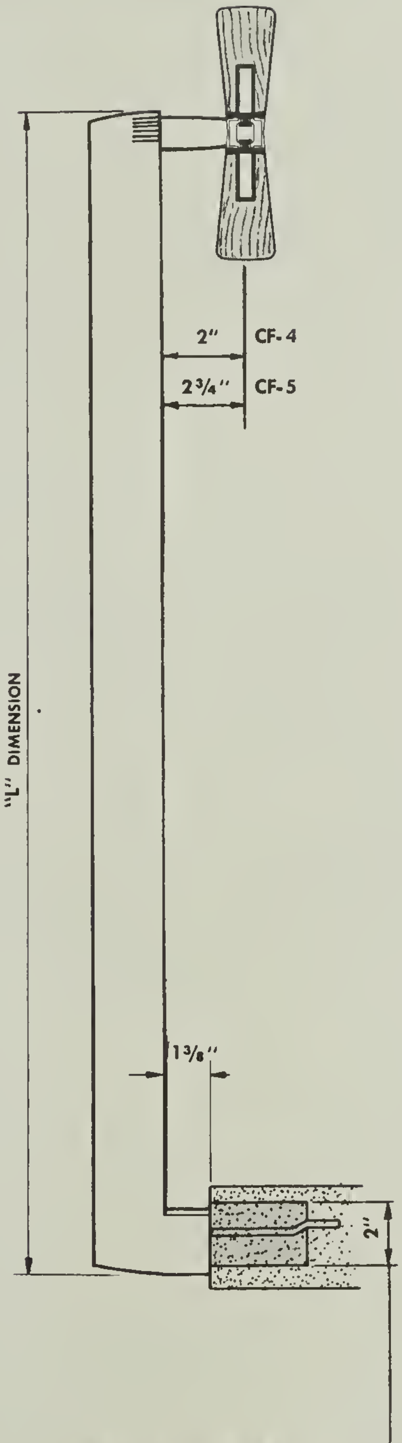
RIGIDITY—THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

FABRICATION—LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

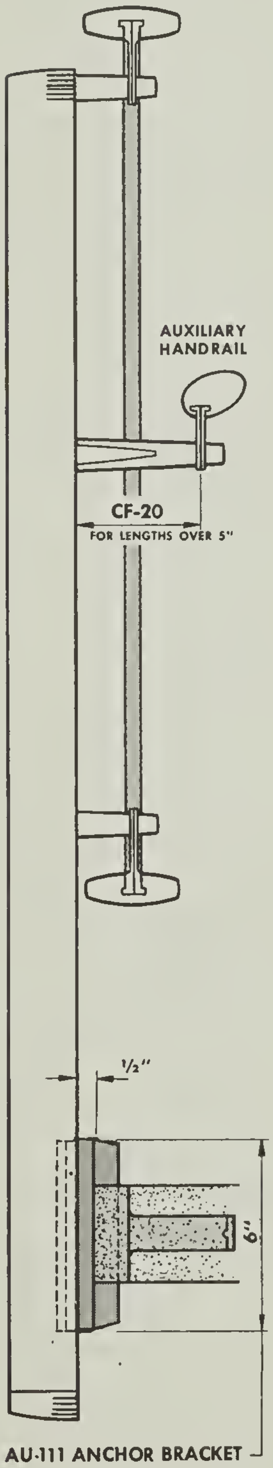
SERVICE TO ARCHITECT—OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.


"L" DIMENSION
FLANGE
FL-111
LEVEL
FL-111 B
RAKE
1/2
4" MIN.

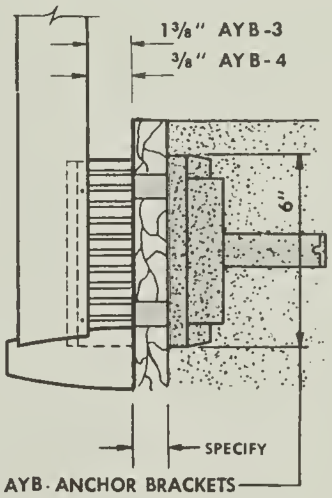
GROUTED POST


2" CF-4
2 3/4" CF-5
"L" DIMENSION
1 3/8"
2"

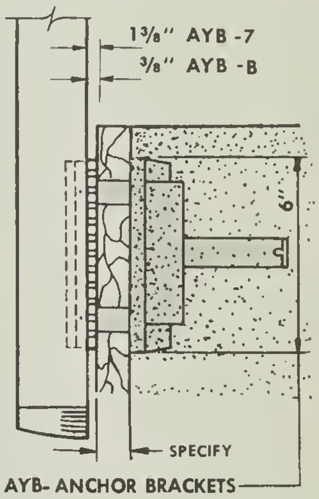
AB-111 ANCHOR BRACKET


AUXILIARY HANDRAIL
CF-20
FOR LENGTHS OVER 5"
1/2"
6"

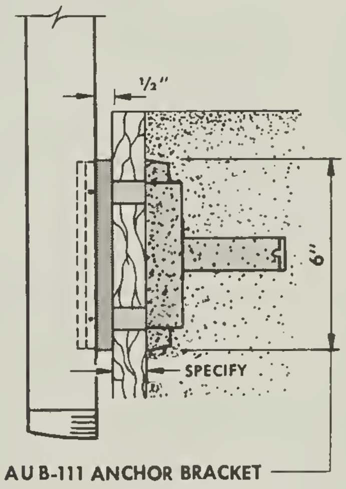
AU-111 ANCHOR BRACKET


1 3/8" AYB-3
3/8" AYB-4
6"
SPECIFY

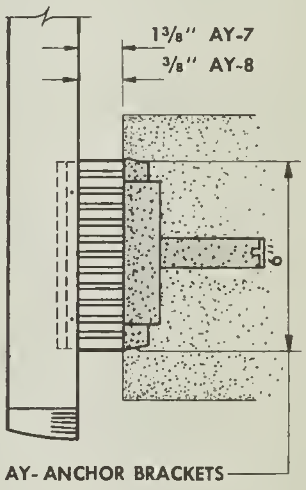
AYB- ANCHOR BRACKETS


1 3/8" AYB -7
3/8" AYB -B
6"
SPECIFY

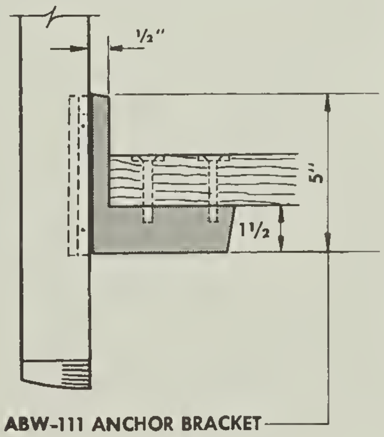
AYB- ANCHOR BRACKETS


1/2"
6"
SPECIFY

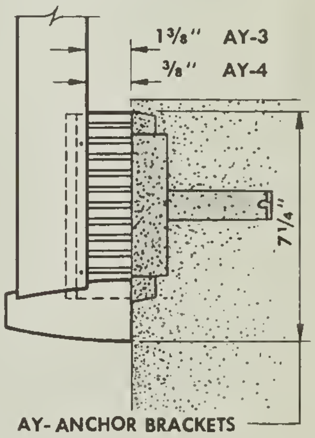
AU B-111 ANCHOR BRACKET


1 3/8" AY-7
3/8" AY-8
6"

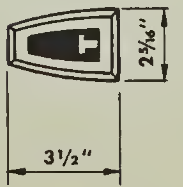
AY- ANCHOR BRACKETS

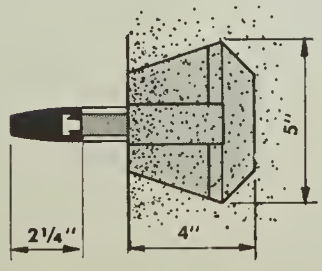


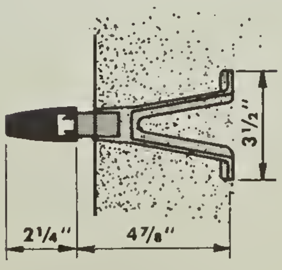
ABW-111 ANCHOR BRACKET

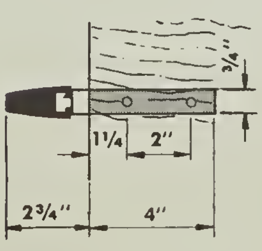

1 3/8" AY-3
3/8" AY-4
7 1/4"

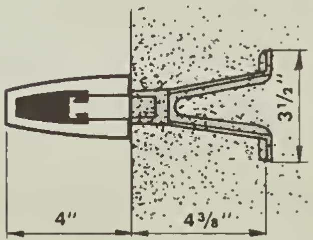
AY- ANCHOR BRACKETS

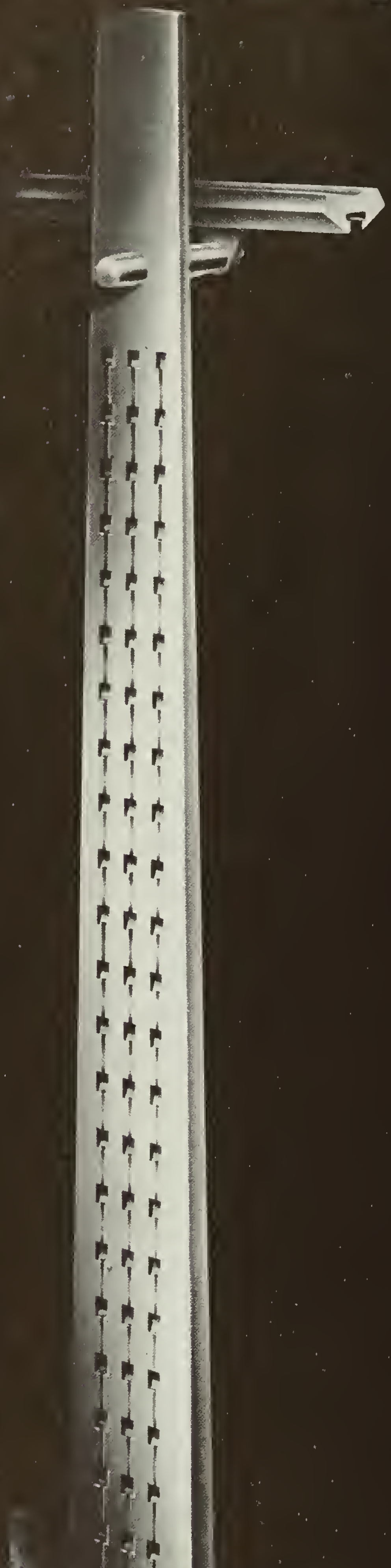




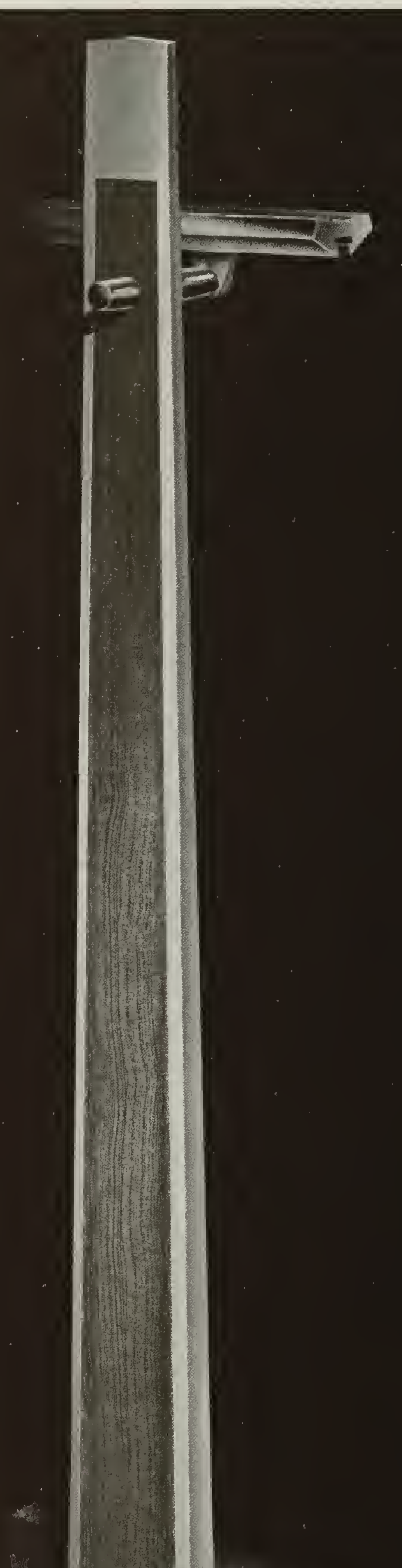



3/4"
1 1/4
2"
2 3/4"
4"

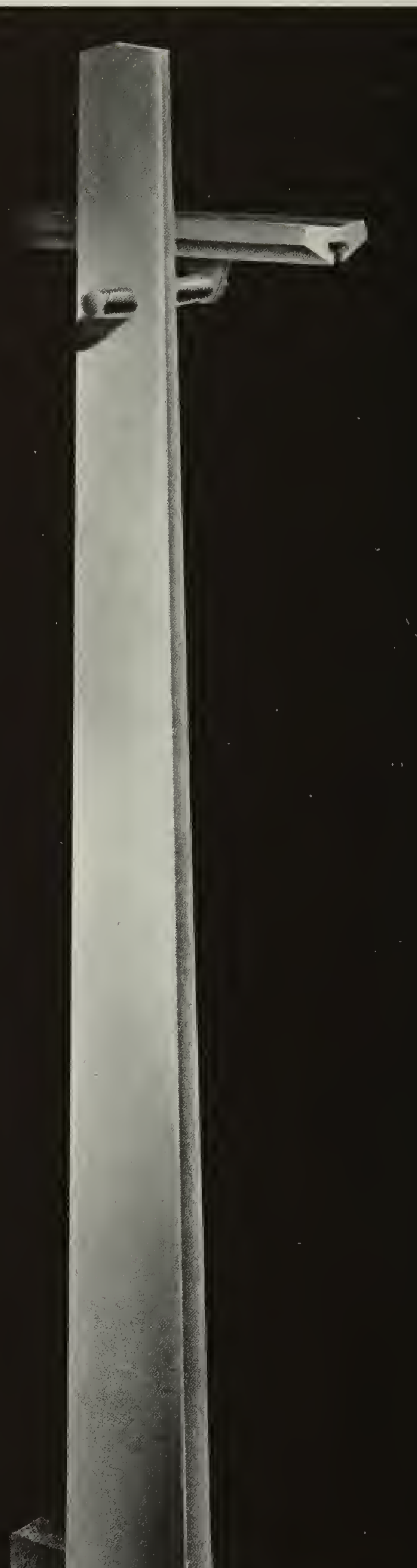




POST 149-S
SCULPTURED PATTERN



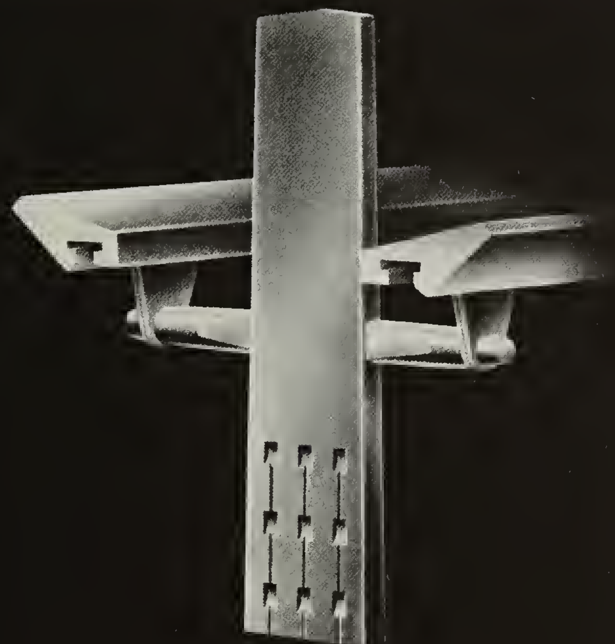
POST 149-W
INLAID WOOD

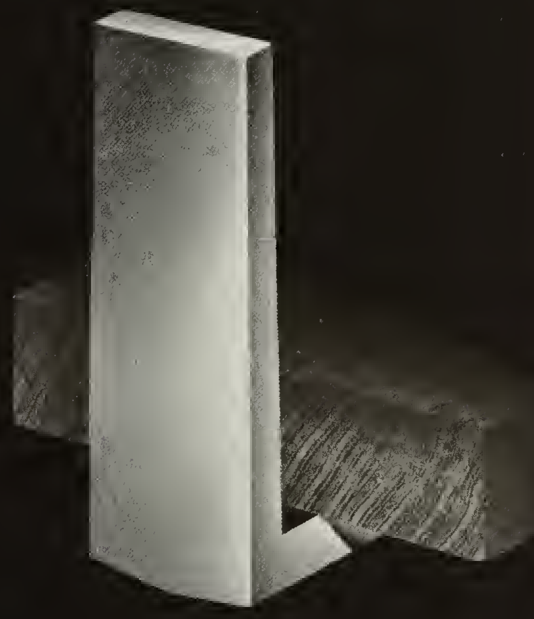


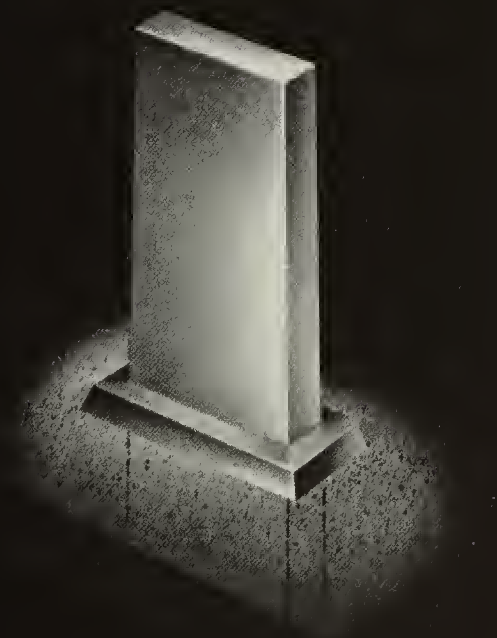
POST 149-P
PLAIN SURFACE

POST 149

SUGGESTED APPLICATIONS







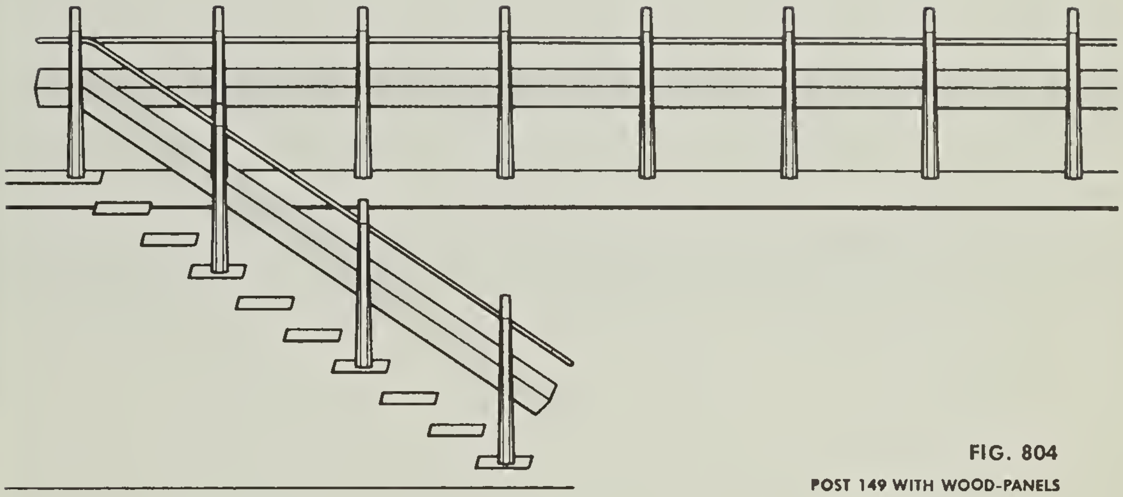


FIG. 804
POST 149 WITH WOOD-PANELS

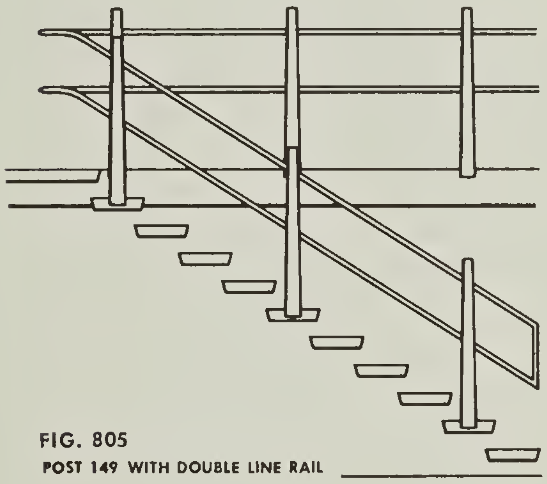


FIG. 805
POST 149 WITH DOUBLE LINE RAIL

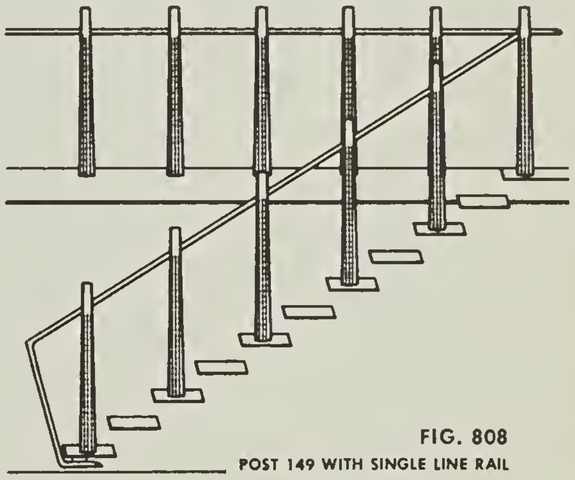


FIG. 808
POST 149 WITH SINGLE LINE RAIL

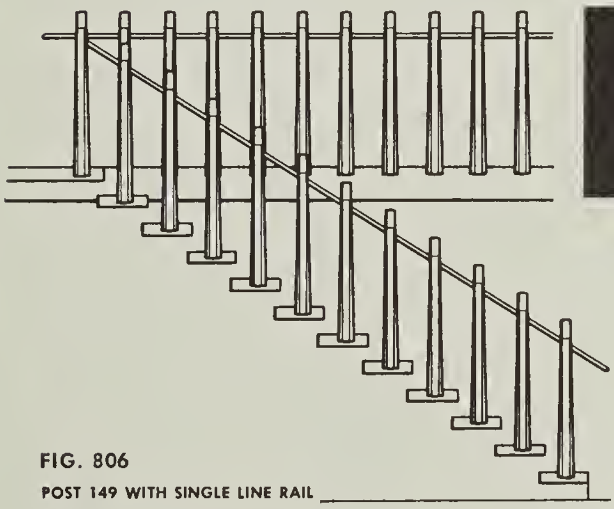


FIG. 806
POST 149 WITH SINGLE LINE RAIL

DETAILS

TAPERED PROFILE.......

.......THIS HEAVY DUTY POST IS AVAILABLE WITH:

- SCULPTURED PATTERN
- INLAID NATURAL WOOD VENEER WITH RUBBED OIL FINISH
- PLAIN SURFACE

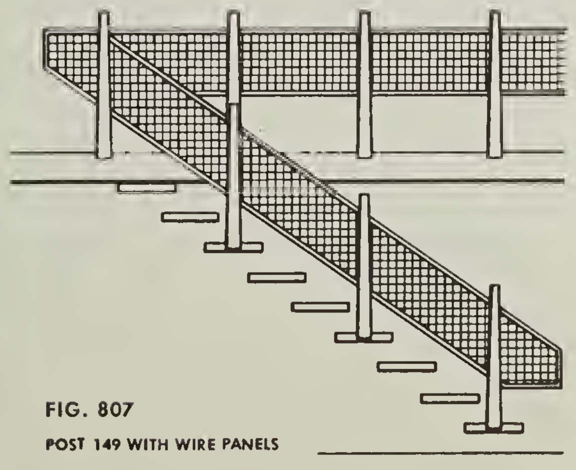
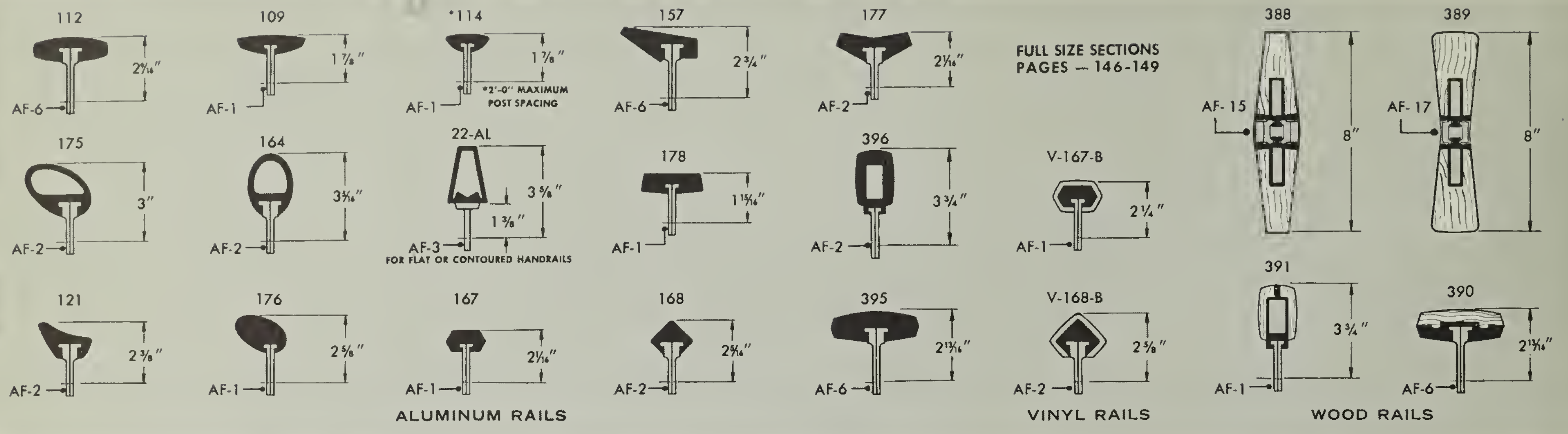
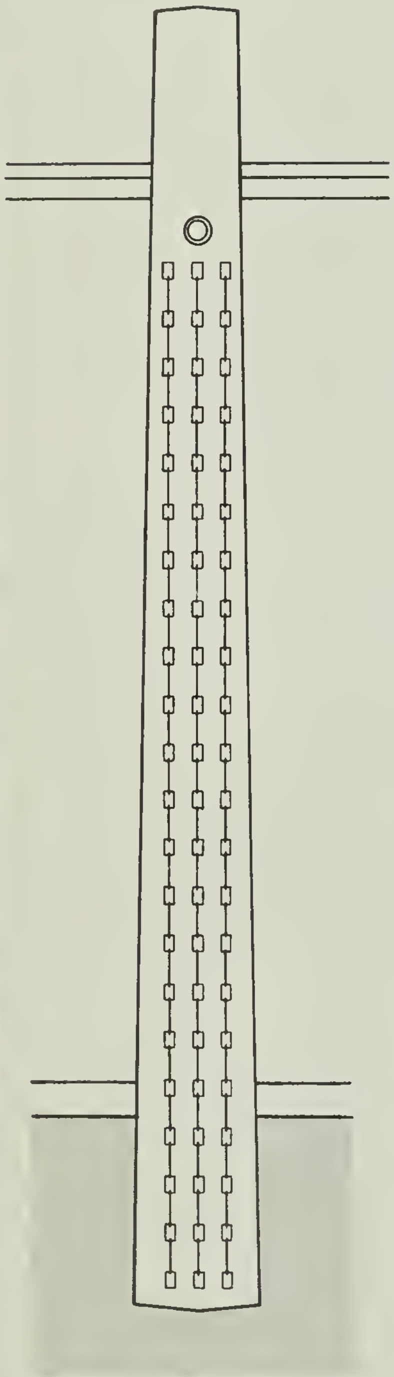


FIG. 807
POST 149 WITH WIRE PANELS

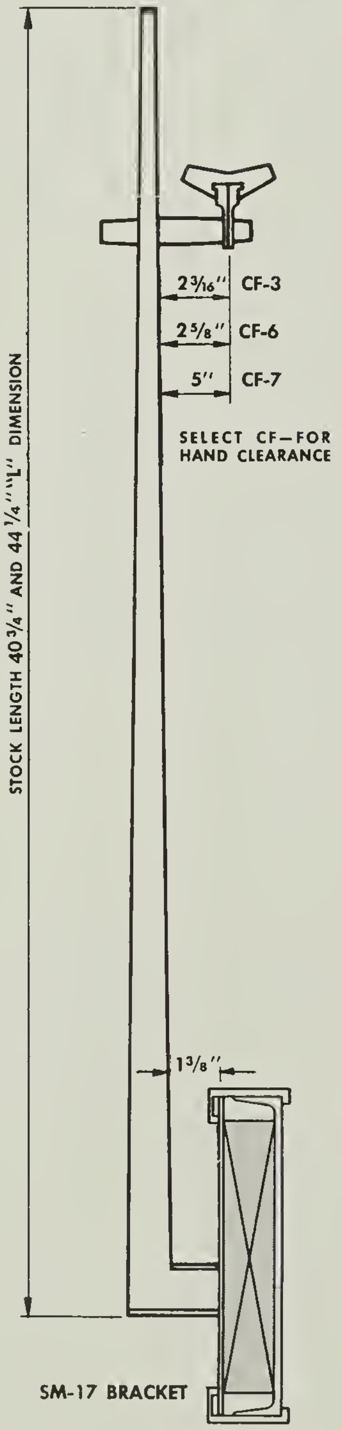
Sculptured pattern or wood inlays appear on both sides of post.


112
AF-6
2 9/16"
109
AF-1
1 7/8"
*114
AF-1
1 7/8"
*2'-0" MAXIMUM POST SPACING
157
AF-6
2 3/4"
177
AF-2
2 1/16"
175
AF-2
3"
164
AF-2
3 5/16"
22-AL
AF-3
3 5/8"
1 3/8"
FOR FLAT OR CONTOURED HANDRAILS
178
AF-1
1 15/16"
396
AF-2
3 3/4"
V-167-B
AF-1
2 1/4"
388
AF-15
8"
389
AF-17
8"
121
AF-2
2 3/8"
176
AF-1
2 5/8"
167
AF-1
2 1/16"
168
AF-2
2 5/16"
395
AF-6
2 13/16"
V-168-B
AF-2
2 5/8"
391
AF-1
3 3/4"
390
AF-6
2 13/16"
ALUMINUM RAILS
VINYL RAILS
WOOD RAILS

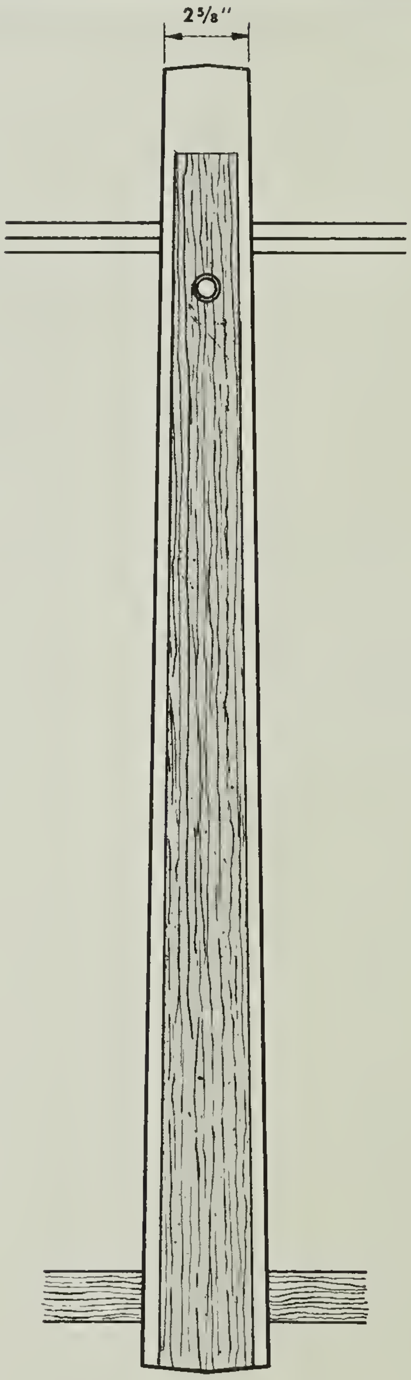
FULL SIZE SECTIONS
PAGES — 146-149



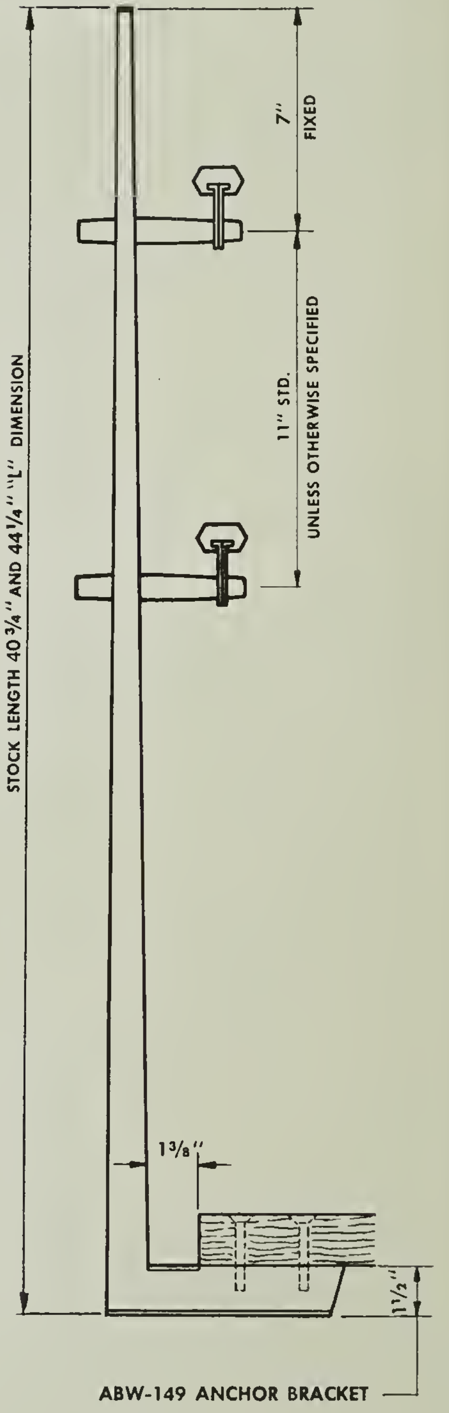
POST 149-S
SCULPTURED PATTERN


STOCK LENGTH 40 3/4" AND 44 1/4" "L" DIMENSION
2 3/16" CF-3
2 5/8" CF-6
5" CF-7
SELECT CF—FOR HAND CLEARANCE
1 3/8"

SM-17 BRACKET

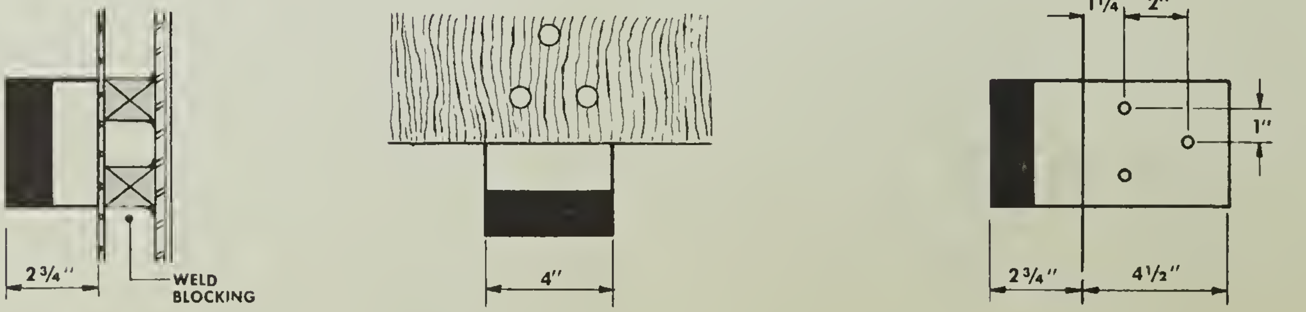


POST 149-W
INLAID WOOD

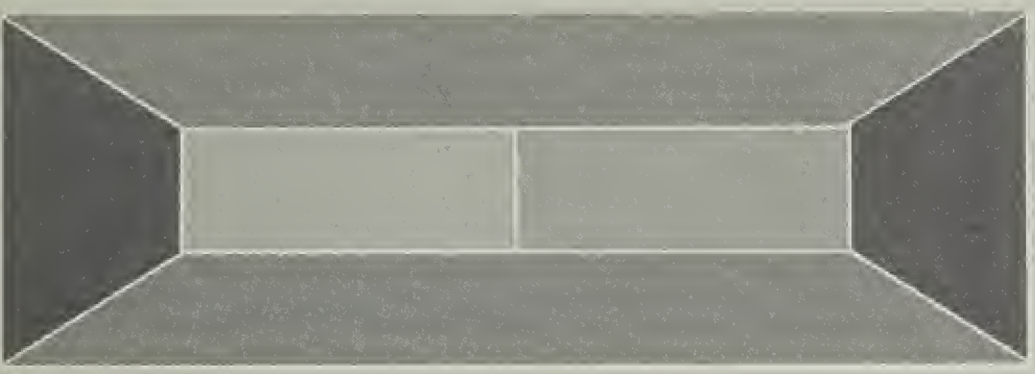

STOCK LENGTH 40 3/4" AND 44 1/4" "L" DIMENSION
7" FIXED
11" STD. UNLESS OTHERWISE SPECIFIED
1 3/8"
1 1/2"

ABW-149 ANCHOR BRACKET

ALTERNATE MOUNTINGS
SCALE 1 1/2" = 1'-0"


2 3/4"
WELD BLOCKING
4"
1 1/4
2"
1"
2 3/4"
4 1/2"

POST 149



FULL SIZE **POST 149** TOP VIEW

POST SPACING — NOT TO EXCEED 4'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 4'-0" FOR LEVEL RAILING EXCEPT WHEN USING NO. 114 HANDRAIL MAXIMUM POST SPACING 2'-0". REFER TO PAGE 150.

STARTING POSTS — INCLUDING THOSE WITH SIDE MOUNTED BRACKETS, SHOULD EXTEND INTO FLOOR FOR ADDED RIGIDITY.

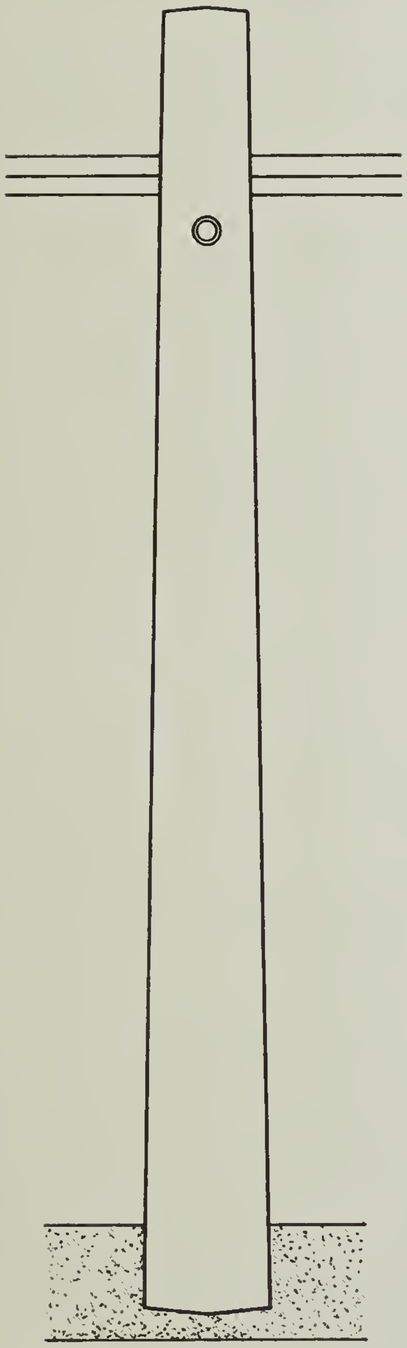
BOXED METAL STRINGERS — SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

CONCRETE STAIRS — USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE.

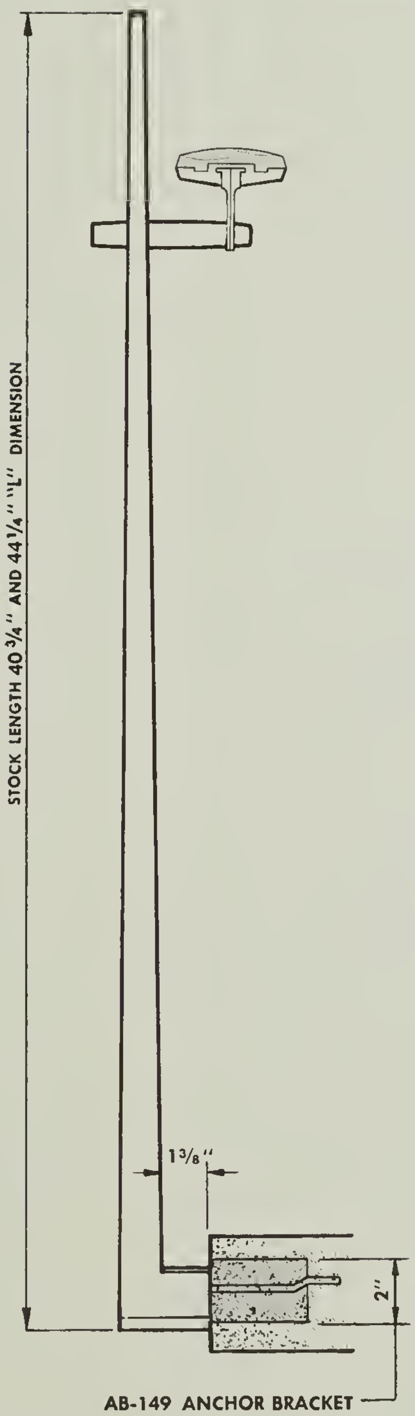
RIGIDITY — THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

FABRICATION — LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

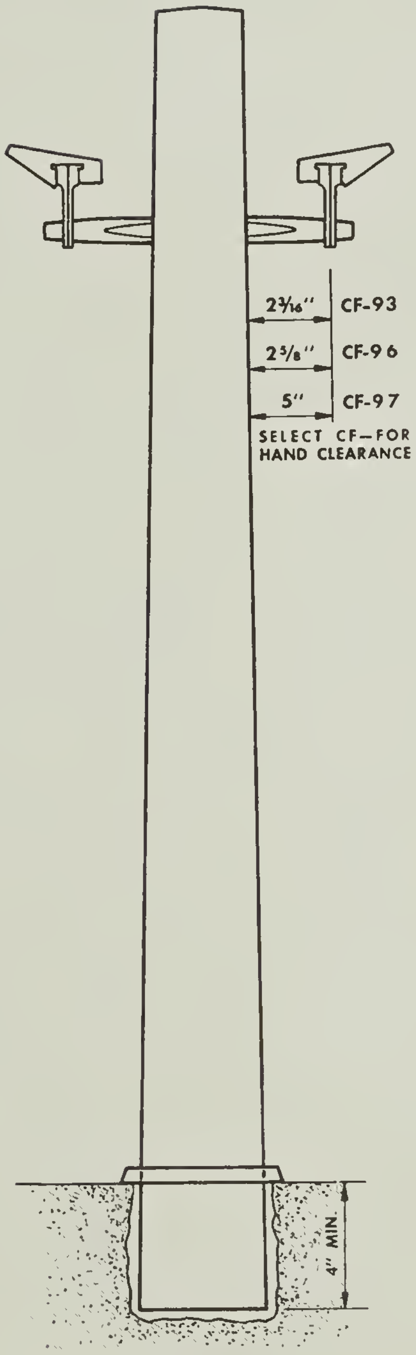
SERVICE TO ARCHITECT — OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.



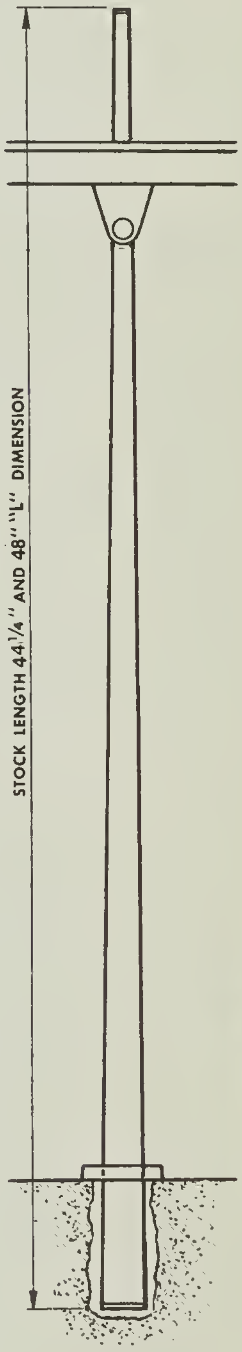
POST 149-P
PLAIN SURFACE


STOCK LENGTH 40 3/4" AND 44 1/4" "L" DIMENSION
1 3/8"
2"

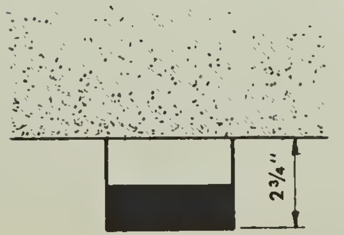
AB-149 ANCHOR BRACKET

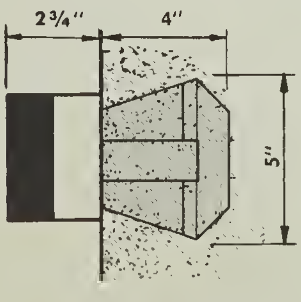

2 3/16" CF-93
2 5/8" CF-96
5" CF-97
SELECT CF—FOR HAND CLEARANCE
4" MIN.

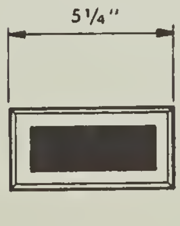
CENTER POST


STOCK LENGTH 44 1/4" AND 48" "L" DIMENSION

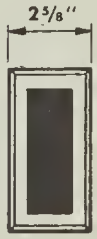
GROUTED POST



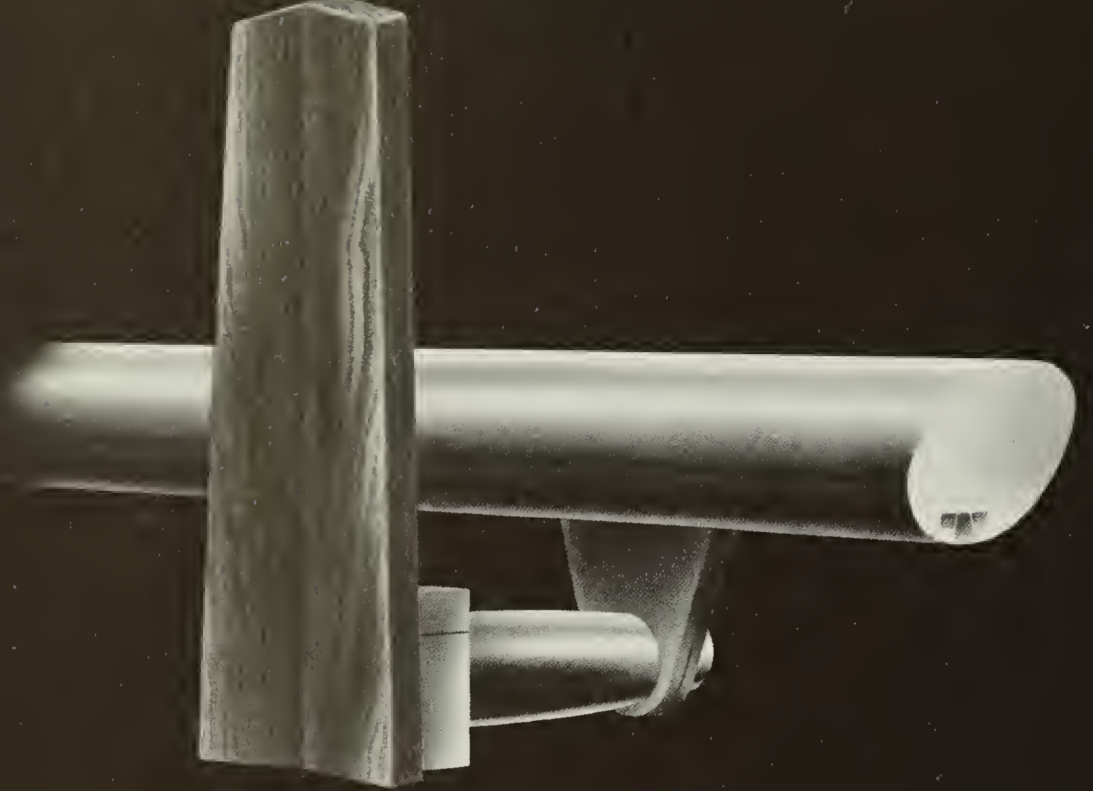


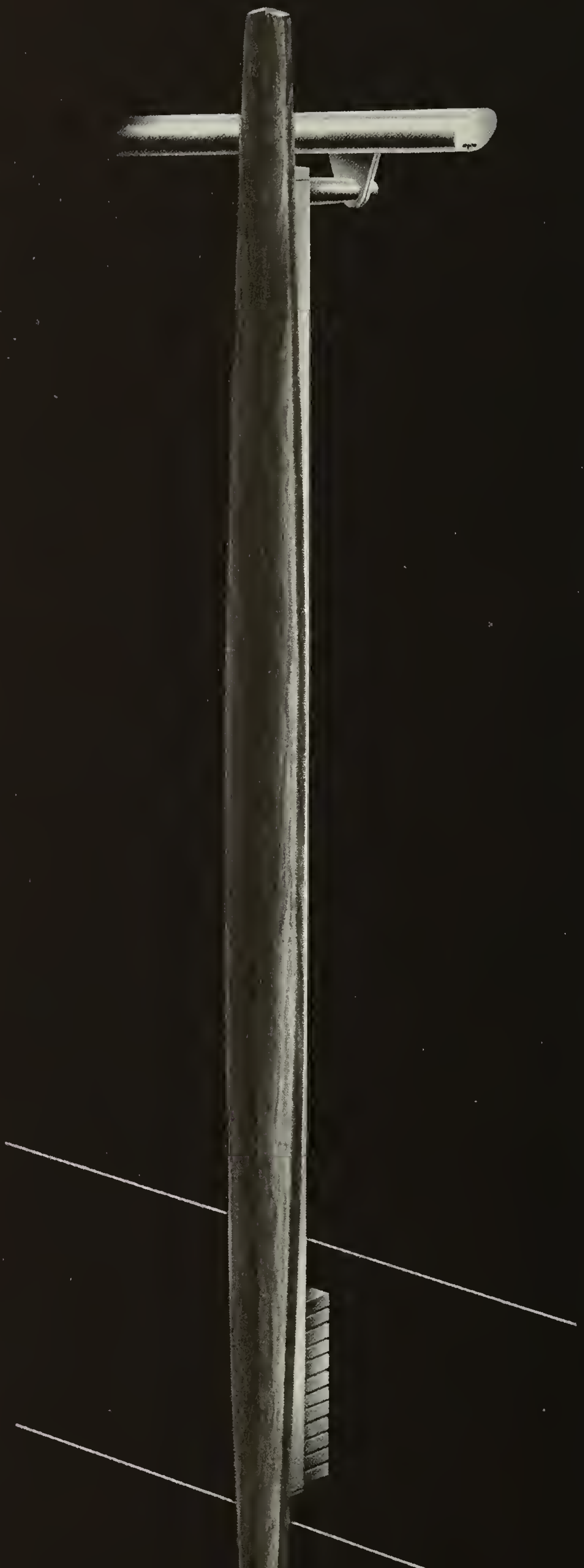


FL-149 FLANGE



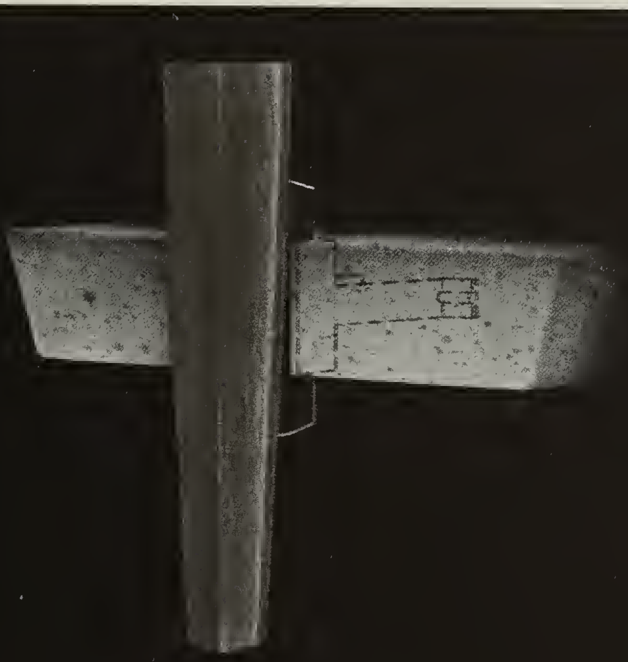
NOTE: Sculptured pattern or wood inlays appear on both sides of post.

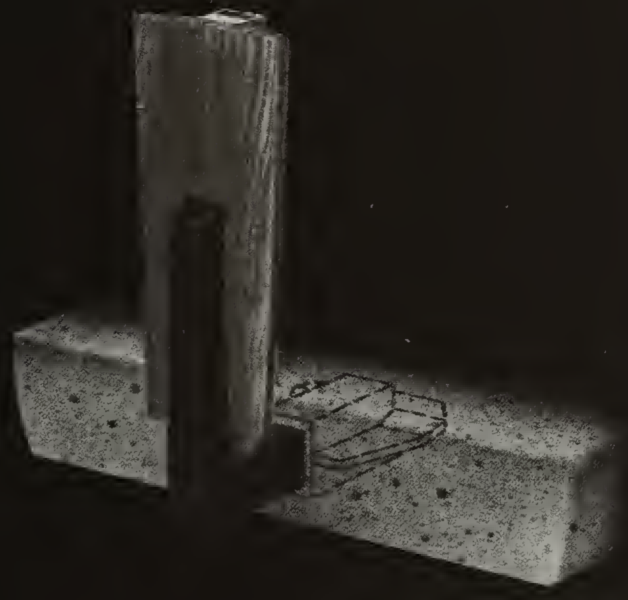


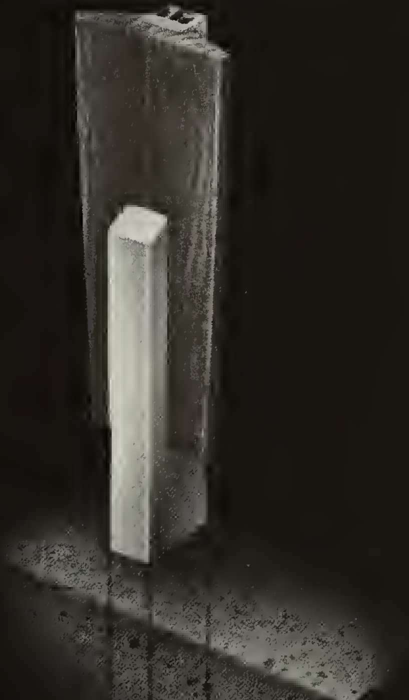


SUGGESTED APPLICATIONS

DELUXE-LINE







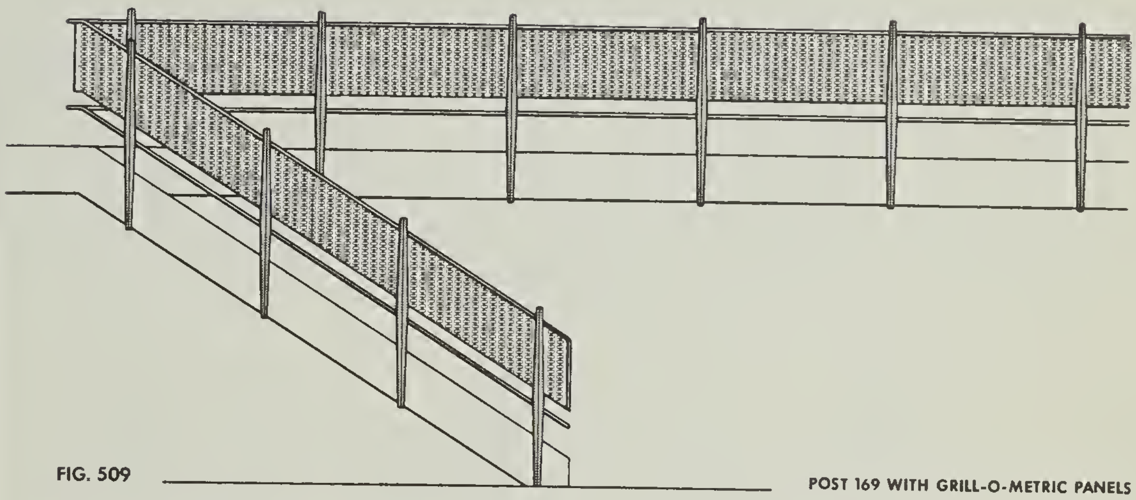


FIG. 509

POST 169 WITH GRILL-O-METRIC PANELS

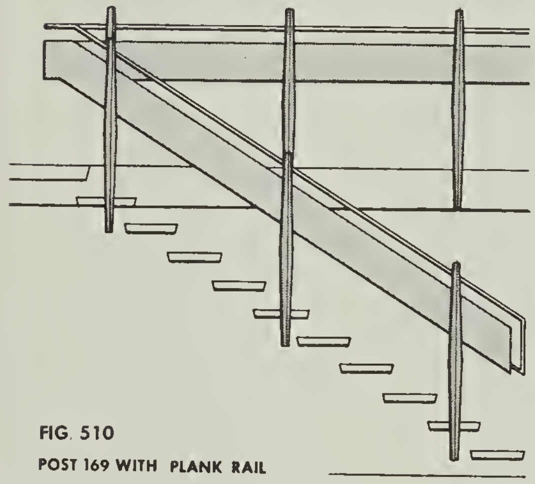


FIG. 510
POST 169 WITH PLANK RAIL

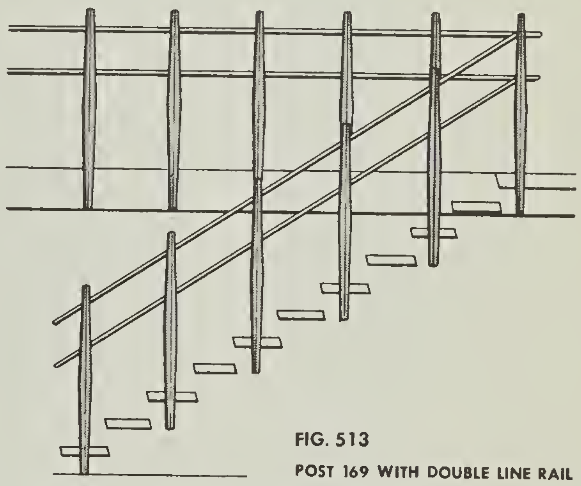


FIG. 513
POST 169 WITH DOUBLE LINE RAIL

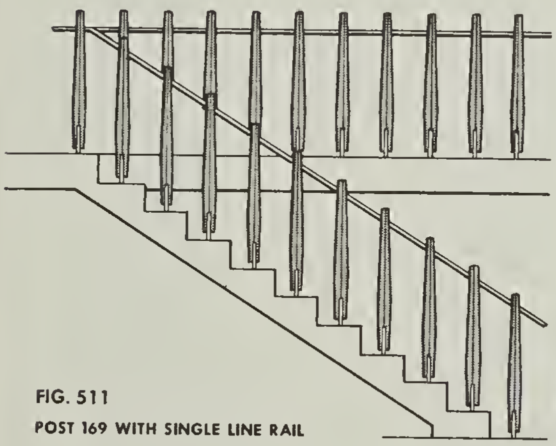
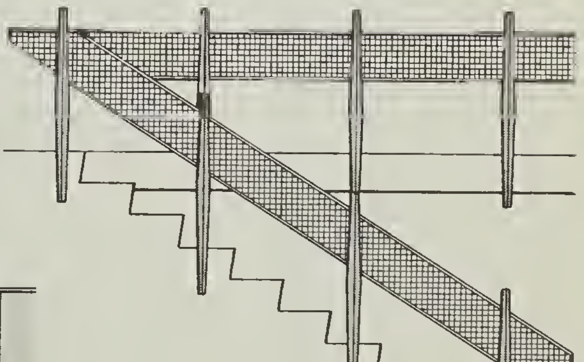
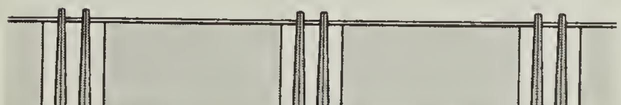


FIG. 511
POST 169 WITH SINGLE LINE RAIL

DETAILS

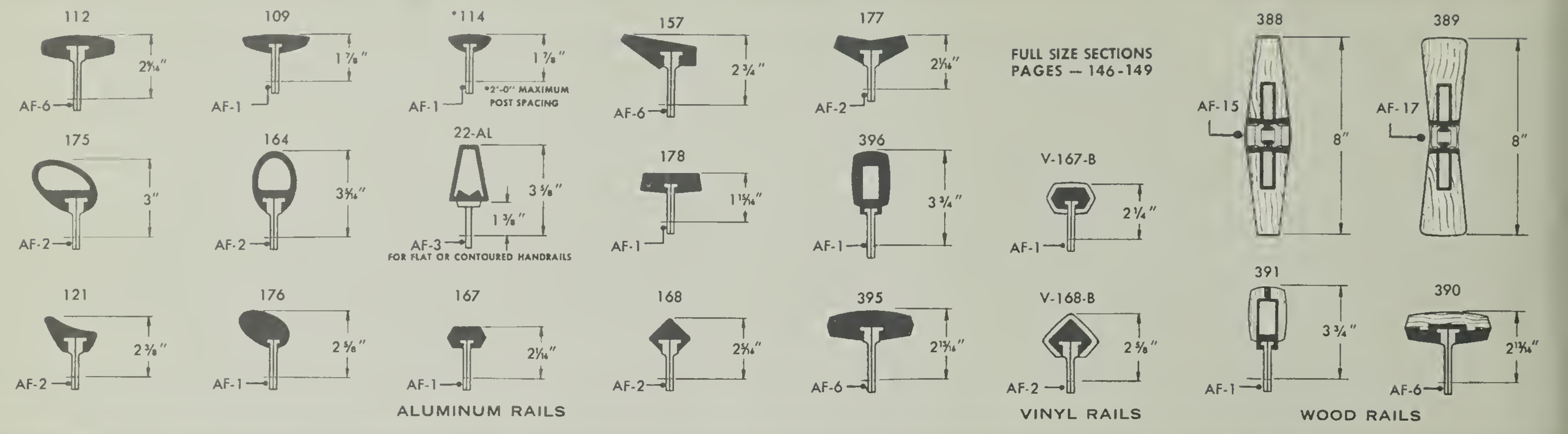


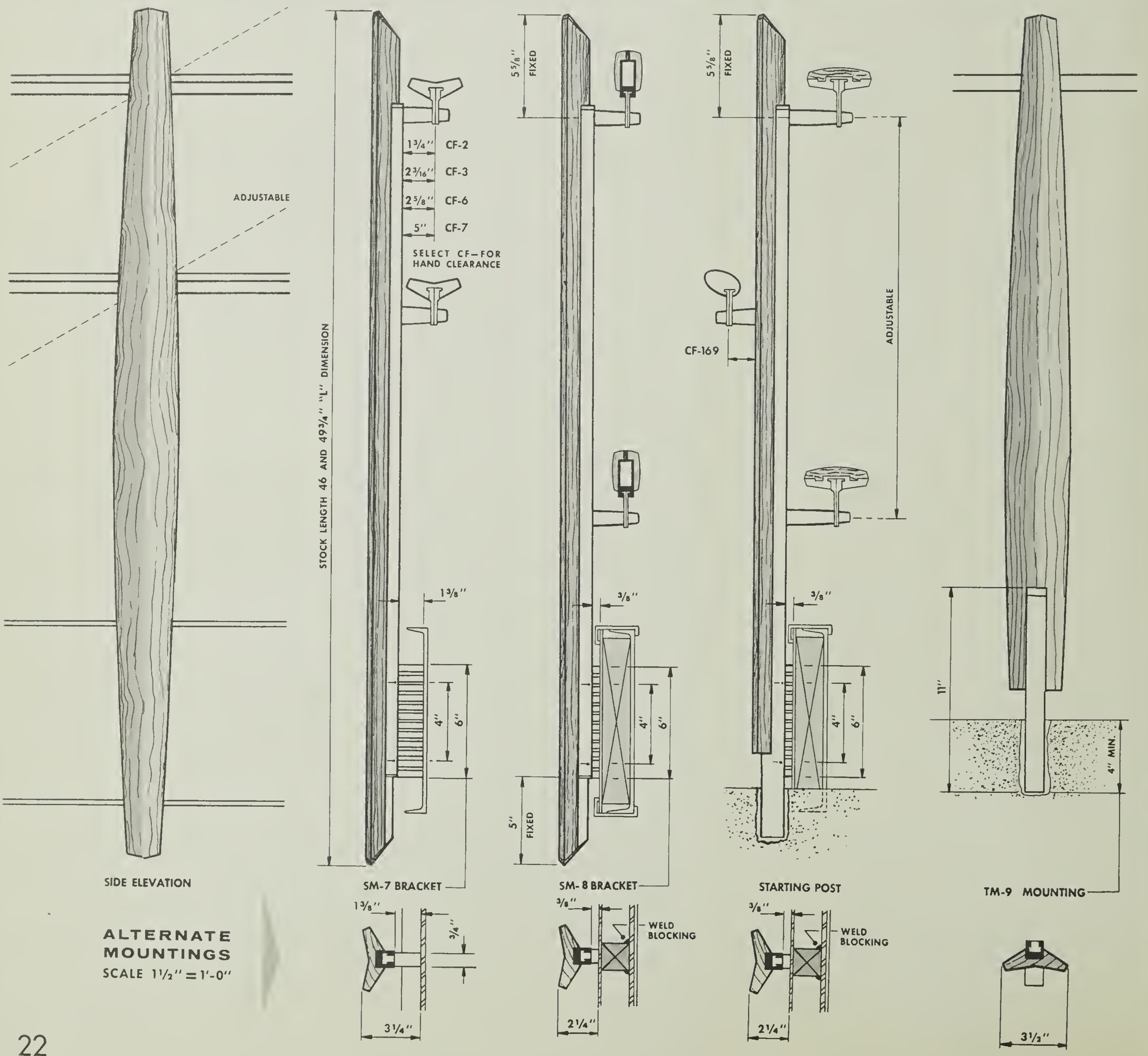
POST 169 WITH WIRE PANELS
FIG. 514



POST 169 WITH GLASS PANELS
FIG. 512

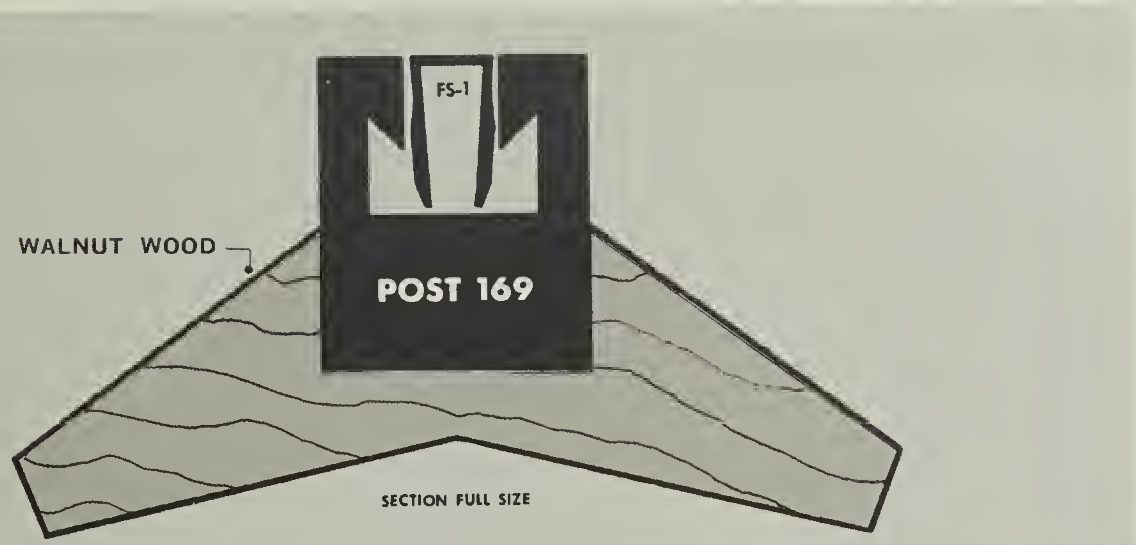
SCULPTURED WOOD POST COMBINES NATURAL FINISHED WOOD WITH ALUMINUM. FURNISHED IN AMERICAN WALNUT WITH A RUBBED OIL FINISH. OTHER WOODS AVAILABLE ON REQUEST.


112
2$\frac{9}{16}$"
AF-6
109
1 $\frac{7}{8}$"
AF-1
*114
1 $\frac{7}{8}$"
*2'-0" MAXIMUM POST SPACING
AF-1
157
2 $\frac{3}{4}$"
AF-6
177
2$\frac{1}{16}$"
AF-2
FULL SIZE SECTIONS PAGES — 146-149
388
AF-15
8"
389
AF-17
8"
175
3"
AF-2
164
3$\frac{5}{16}$"
AF-2
22-AL
3 $\frac{3}{8}$"
1 $\frac{3}{8}$"
AF-3
FOR FLAT OR CONTOURED HANDRAILS
178
1$\frac{15}{16}$"
AF-1
396
3 $\frac{3}{4}$"
AF-1
V-167-B
2 $\frac{1}{4}$"
AF-1
121
2 $\frac{3}{8}$"
AF-2
176
2 $\frac{5}{8}$"
AF-1
167
2$\frac{1}{16}$"
AF-1
168
2$\frac{5}{16}$"
AF-2
395
2$\frac{13}{16}$"
AF-6
V-168-B
2 $\frac{5}{8}$"
AF-2
391
3 $\frac{3}{4}$"
AF-1
390
2$\frac{13}{16}$"
AF-6
ALUMINUM RAILS
VINYL RAILS
WOOD RAILS


ADJUSTABLE
SIDE ELEVATION
STOCK LENGTH 46 AND 49$\frac{3}{4}$" "L" DIMENSION
1$\frac{3}{4}$" CF-2
2$\frac{3}{16}$" CF-3
2$\frac{5}{8}$" CF-6
5" CF-7
SELECT CF—FOR HAND CLEARANCE
1$\frac{3}{8}$"
4"
6"
SM-7 BRACKET
1$\frac{3}{8}$"
$\frac{3}{4}$"
3$\frac{1}{4}$"
5 $\frac{5}{8}$" FIXED
$\frac{3}{8}$"
4"
6"
5" FIXED
SM-8 BRACKET
$\frac{3}{8}$"
WELD BLOCKING
2$\frac{1}{4}$"
5 $\frac{5}{8}$" FIXED
ADJUSTABLE
CF-169
$\frac{3}{8}$"
4"
6"
STARTING POST
$\frac{3}{8}$"
WELD BLOCKING
2$\frac{1}{4}$"
11"
4" MIN
TM-9 MOUNTING
3$\frac{1}{2}$"

ALTERNATE MOUNTINGS
SCALE 1$\frac{1}{2}$" = 1'-0"

WOOD
POST 169


FS-1
WALNUT WOOD
POST 169

SECTION FULL SIZE

POST SPACING — NOT TO EXCEED 4'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 4'-0" FOR LEVEL RAILING EXCEPT WHEN USING NO. 114 HANDRAIL MAXIMUM POST SPACING 2'-0". REFER TO PAGE 150.

STARTING POSTS — INCLUDING THOSE WITH SIDE MOUNTED BRACKETS, SHOULD EXTEND INTO FLOOR FOR ADDED RIGIDITY.

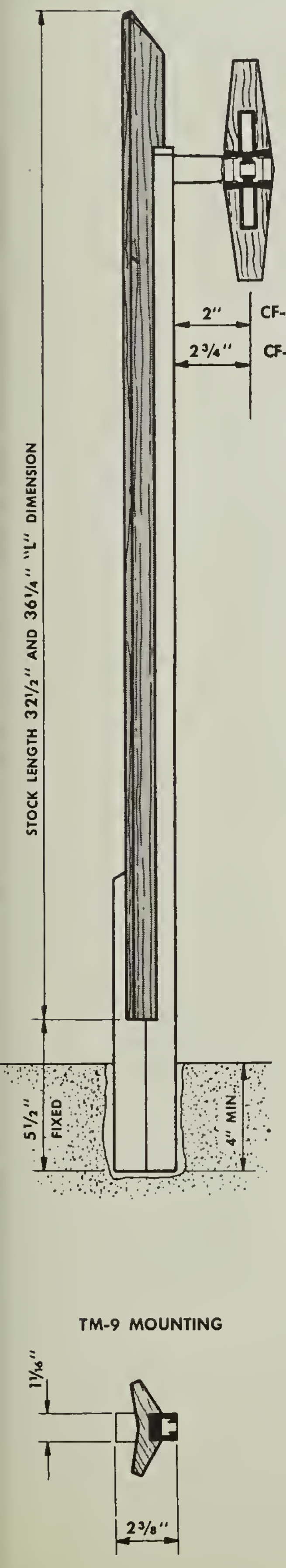
BOXED METAL STRINGERS — SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

CONCRETE STAIRS — USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE.

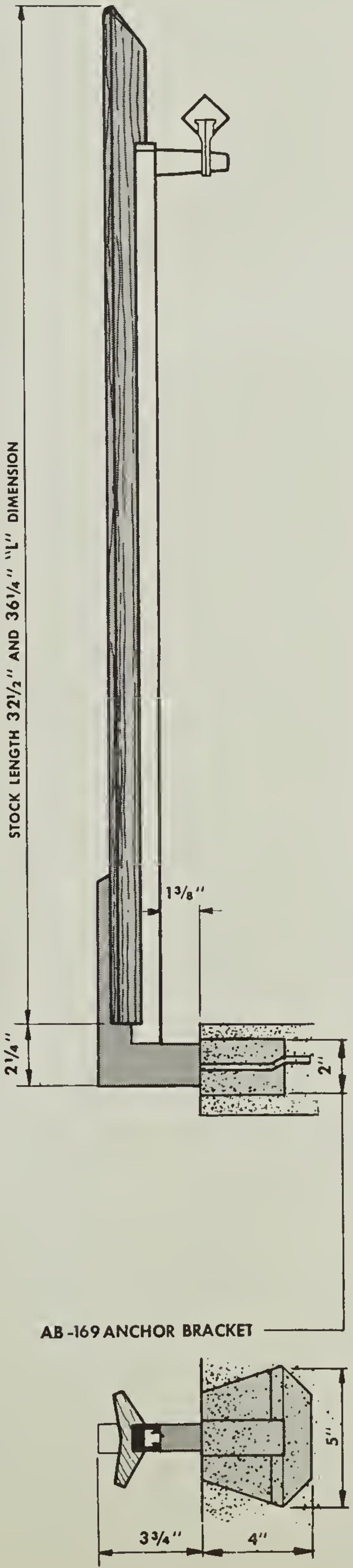
RIGIDITY — THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

FABRICATION — LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

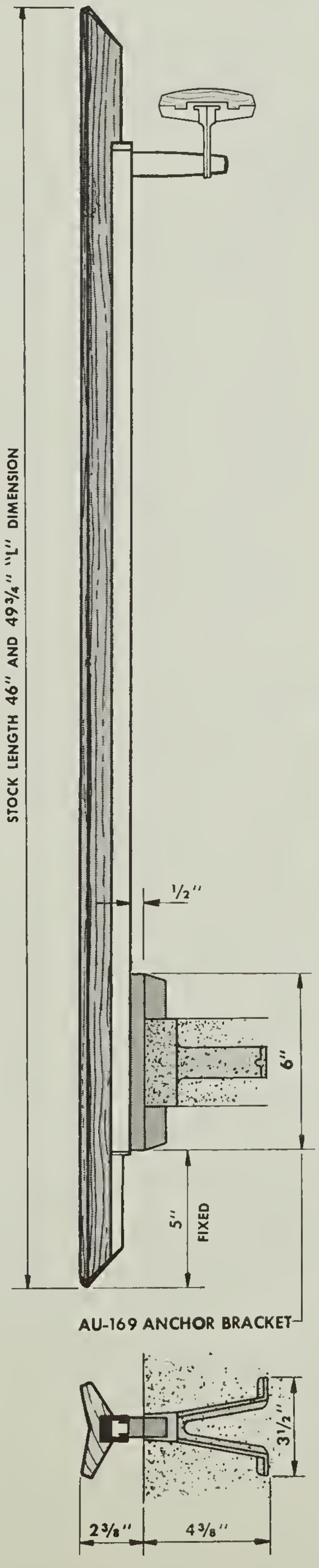
SERVICE TO ARCHITECT — OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.


STOCK LENGTH 32½" AND 36¼" "L" DIMENSION
2" CF-4
2¾" CF-5
5½" FIXED
4" MIN.
1¹⁄₁₆"
2⅜"

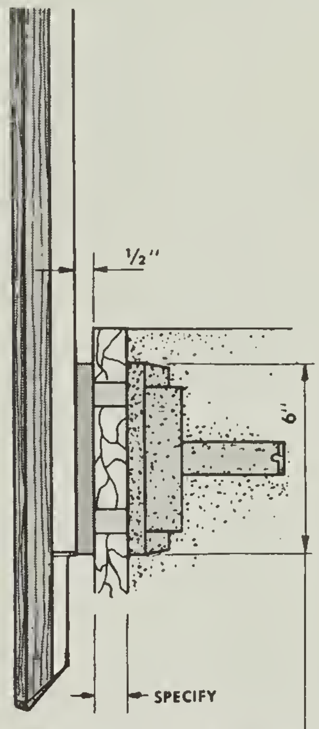
TM-9 MOUNTING


STOCK LENGTH 32½" AND 36¼" "L" DIMENSION
1⅜"
2¼"
2"
5"
3¾"
4"

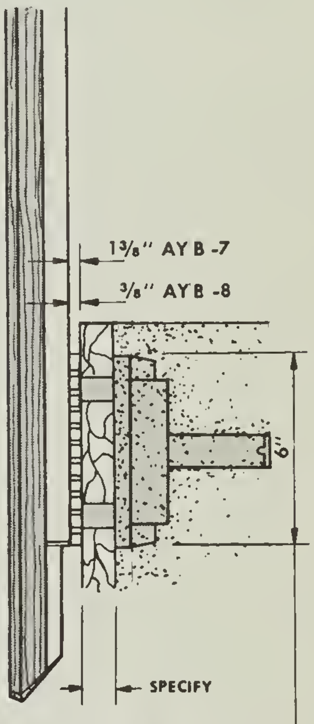
AB-169 ANCHOR BRACKET


STOCK LENGTH 46" AND 49¾" "L" DIMENSION
½"
6"
5" FIXED
3½"
2⅜"
4⅜"

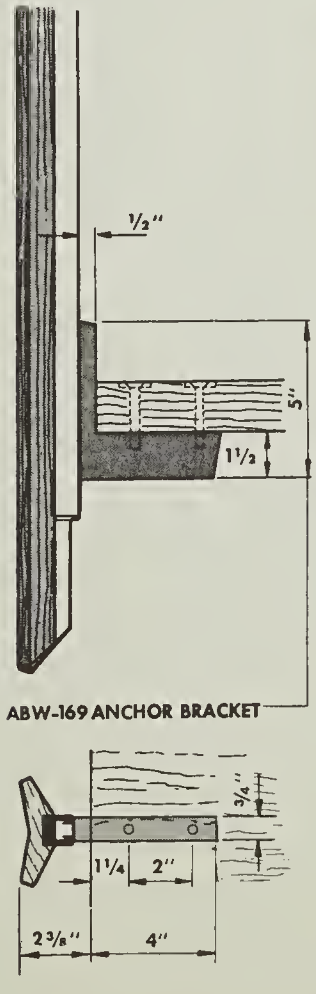
AU-169 ANCHOR BRACKET



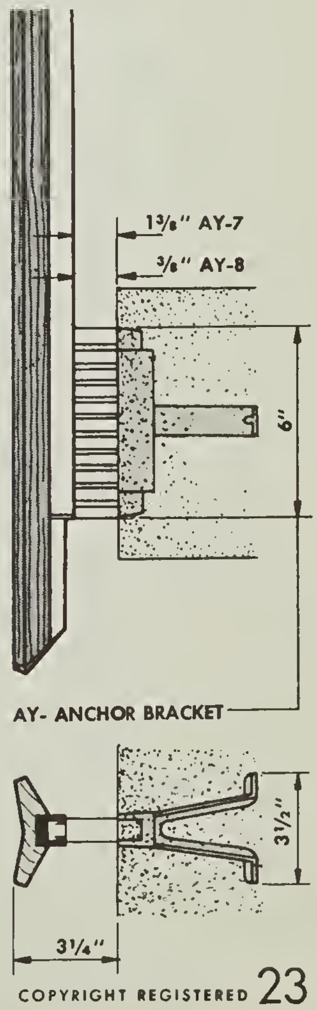
AUB-169 ANCHOR BRACKET


1⅜" AYB-7
⅜" AYB-8
6"
SPECIFY

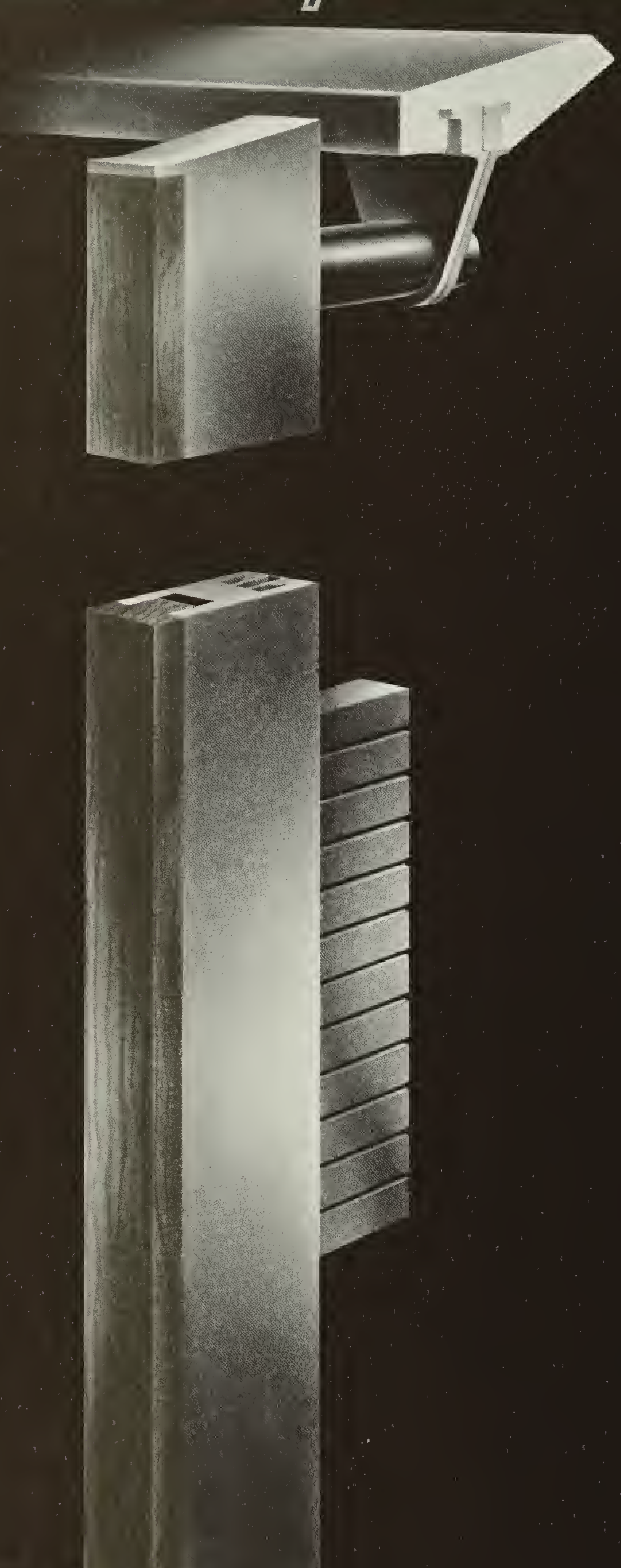
AYB - ANCHOR BRACKET

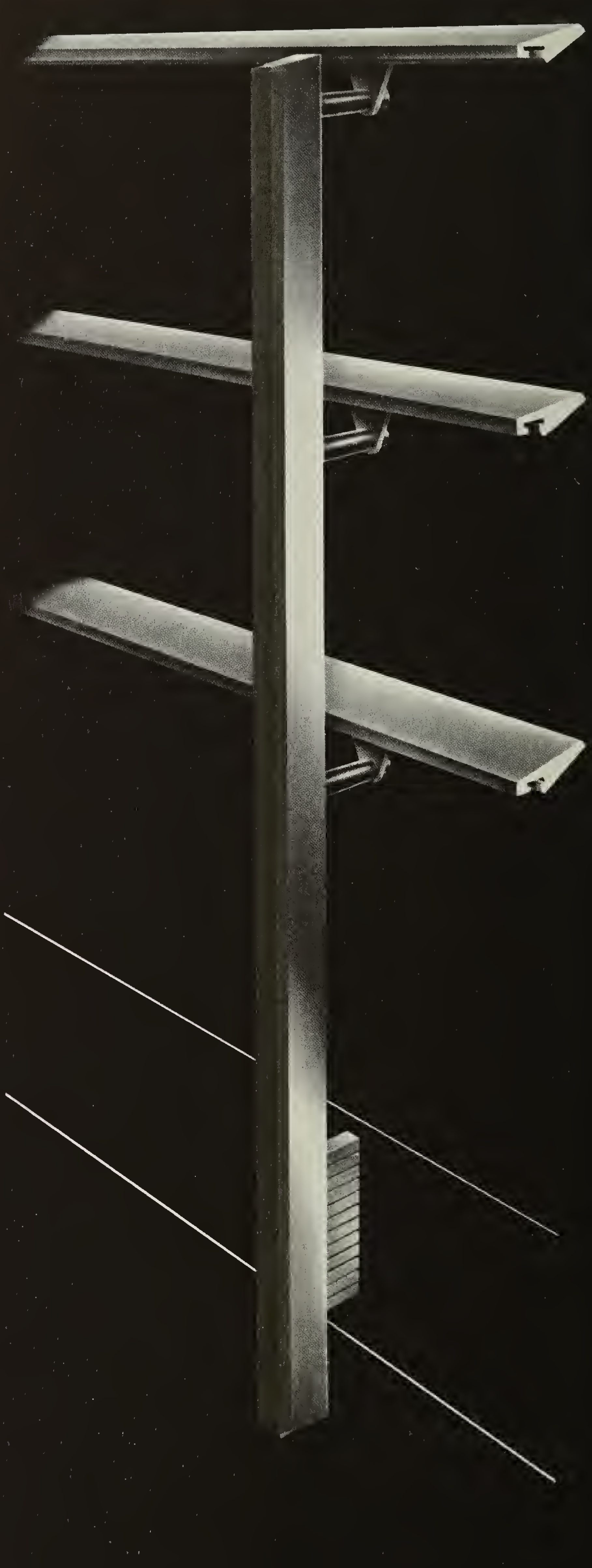

½"
5"
1½
¾"
1¼
2"
2⅜"
4"

ABW-169 ANCHOR BRACKET

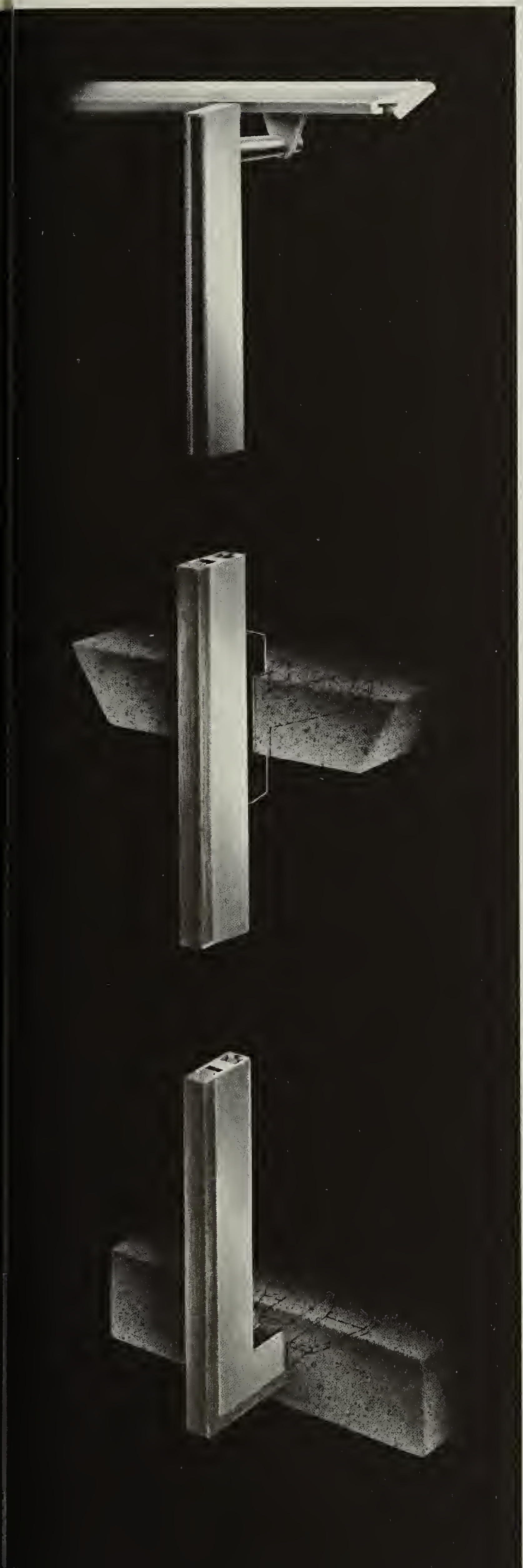

1⅜" AY-7
⅜" AY-8
6"
3½"
3¼"

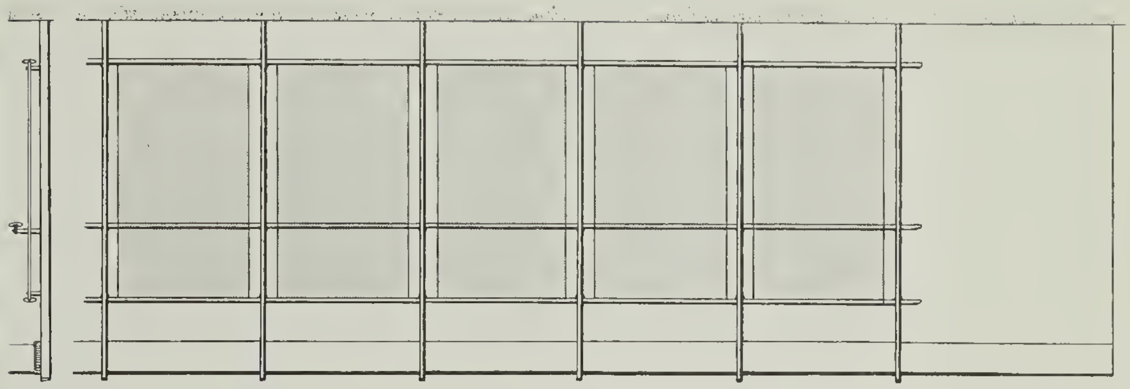
AY- ANCHOR BRACKET





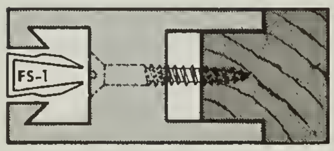
SUGGESTED APPLICATIONS DELUXE-LINE



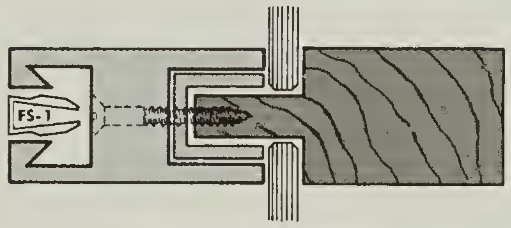


SECTION

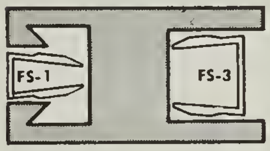
FIG. 515 POST 170 SIDE MOUNTED BALUSTRATION WITH GLASS PANELS



POST 170 w/WOOD TRIM

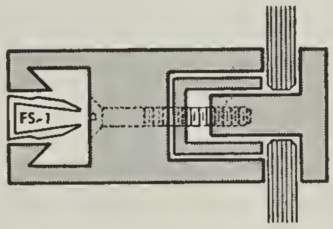


POST 170 w/WOOD TRIM FOR PANELS
UP TO 1" THICK



SECTIONS
HALF-SIZE

POST 170 w/ALUMINUM INSERT FS-3



POST 170 w/TB-7 TRIM FOR PANELS
UP TO 1" THICK

WOOD TRIM

POST 170 COMBINING ALUMINUM AND WOOD. AVAILABLE IN SELECT AMERICAN WALNUT —WITH A RUBBED OIL FINISH.

THE COMPLETE POST, INCLUDING WOOD TRIM, IS FURNISHED BY BLUMCRAFT TO FABRICATOR'S DIMENSIONS.

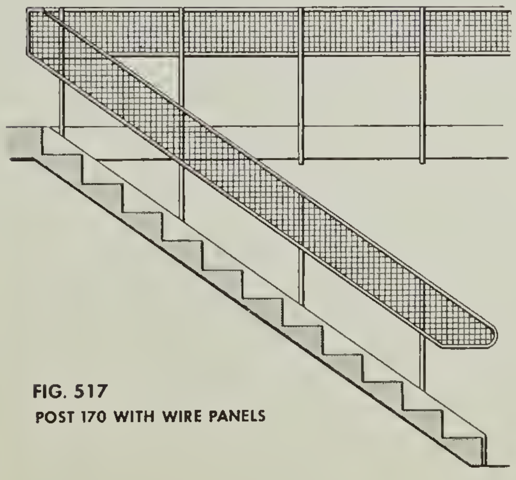


FIG. 517
POST 170 WITH WIRE PANELS

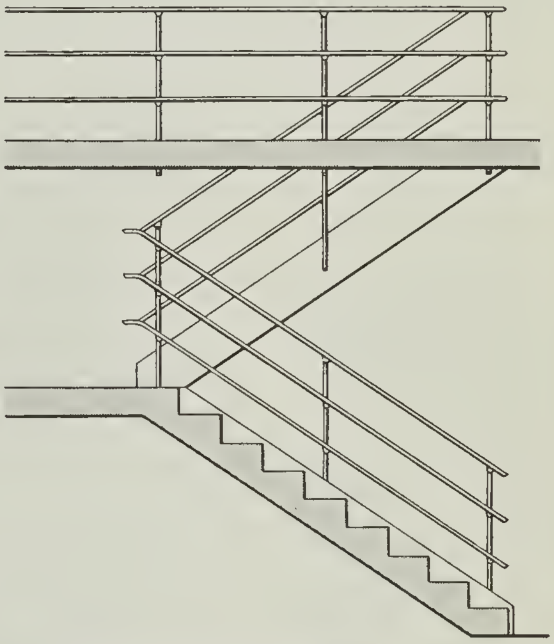


FIG. 516 POST 170 WITH THREE LINE RAIL

DETAILS

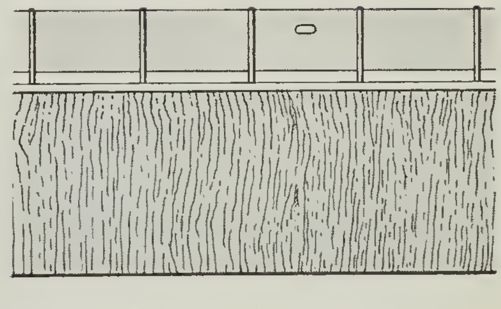


FIG. 518 SHORT POST 170 FOR COUNTER SCREEN

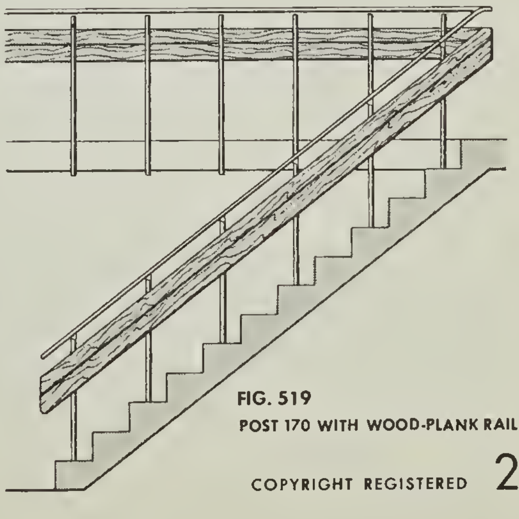
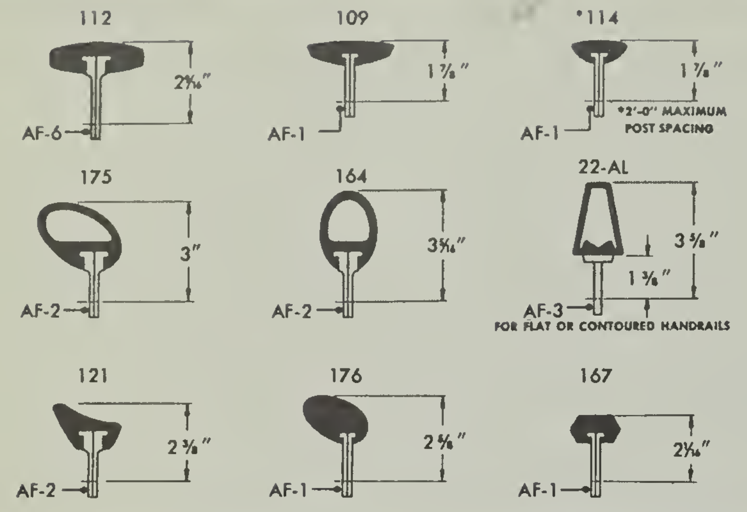
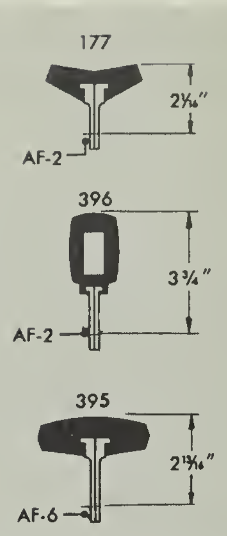


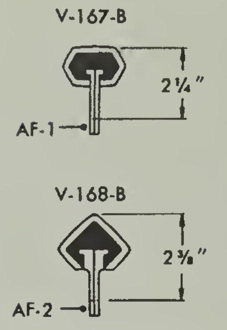
FIG. 519
POST 170 WITH WOOD-PLANK RAILS


112
2⁹⁄₁₆″
AF-6
109
1⅞″
AF-1
*114
1⅞″
*2′-0″ MAXIMUM POST SPACING
AF-1
157
2¾″
AF-6
175
3″
AF-2
164
3⁵⁄₁₆″
AF-2
22-AL
3⅜″
1⅜″
AF-3
FOR FLAT OR CONTOURED HANDRAILS
178
1¹⁵⁄₁₆″
AF-1
121
2⅜″
AF-2
176
2⅝″
AF-1
167
2⁷⁄₁₆″
AF-1
168
2⁹⁄₁₆″
AF-2

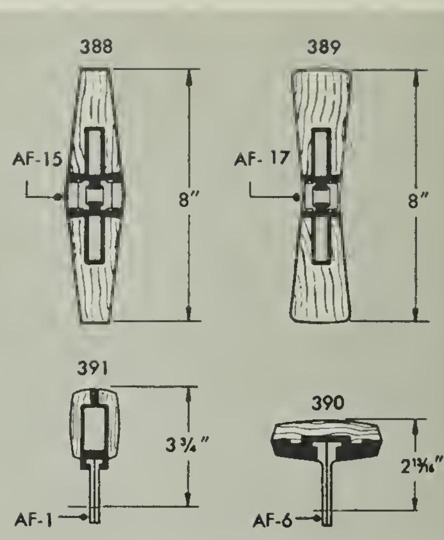
ALUMINUM RAILS


177
2⁵⁄₁₆″
AF-2
396
3¾″
AF-2
395
2¹³⁄₁₆″
AF-6

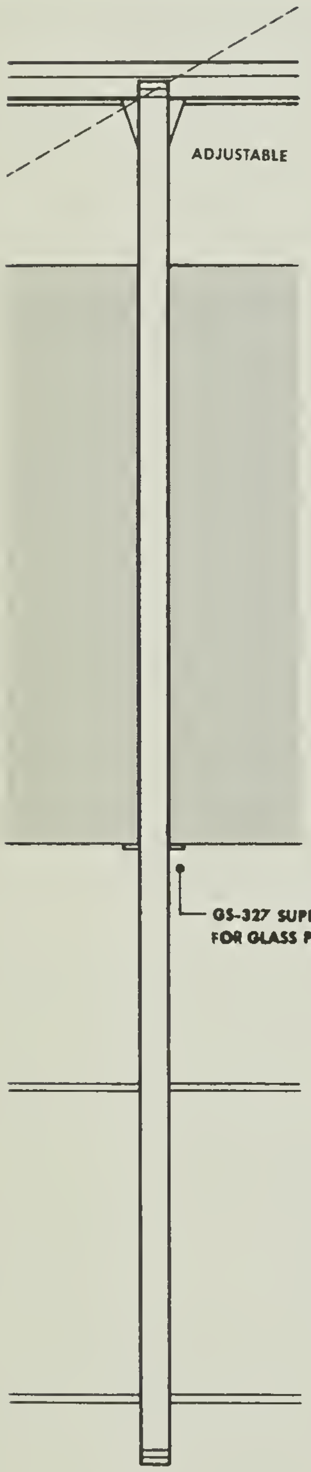
FULL SIZE SECTIONS
PAGES — 146-149


V-167-B
2¼″
AF-1
V-168-B
2⅜″
AF-2

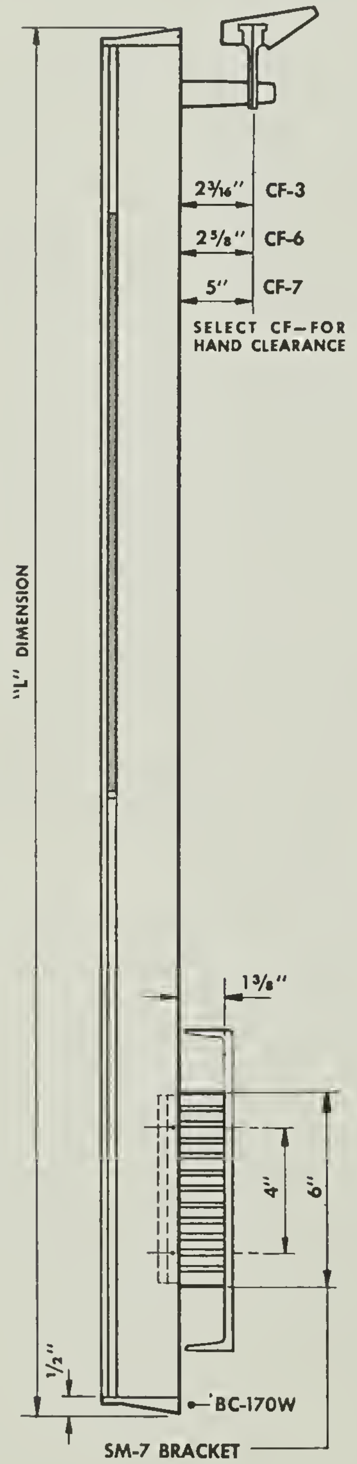
VINYL RAILS


388
AF-15
8″
389
AF-17
8″
391
3¾″
AF-1
390
2¹³⁄₁₆″
AF-6

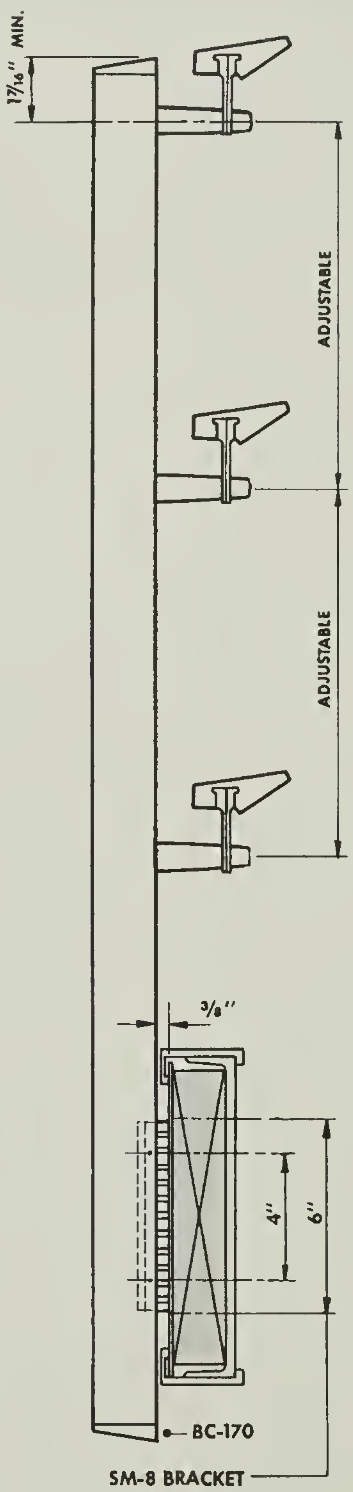
WOOD RAILS


ADJUSTABLE
GS-327 SUPPORT FOR GLASS PANELS

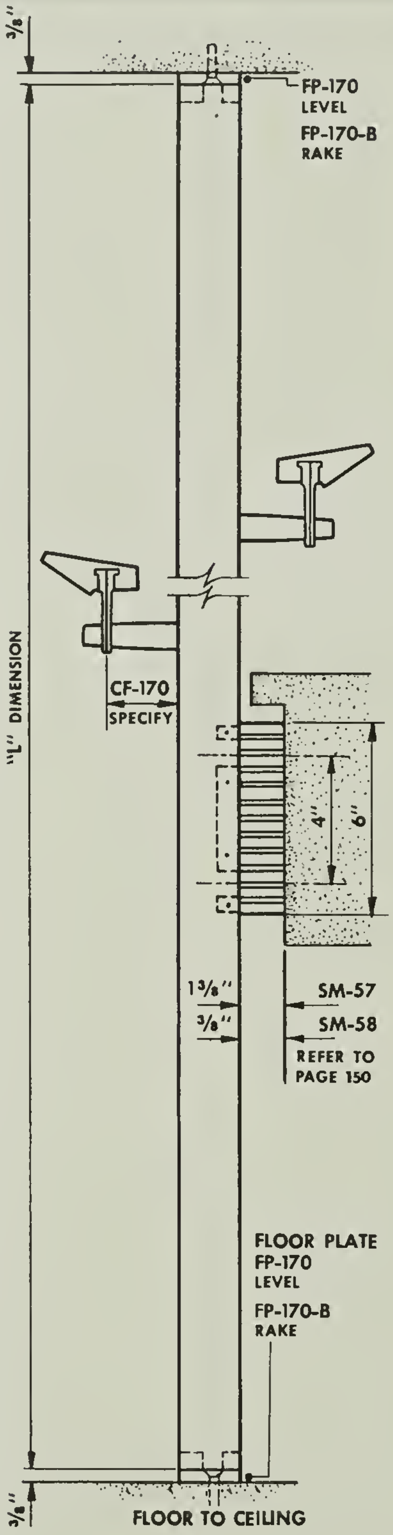
SIDE ELEVATION


2³⁄₁₆″ CF-3
2⅝″ CF-6
5″ CF-7
SELECT CF—FOR HAND CLEARANCE
"L" DIMENSION
1⅜″
4″
6″
½″
BC-170W

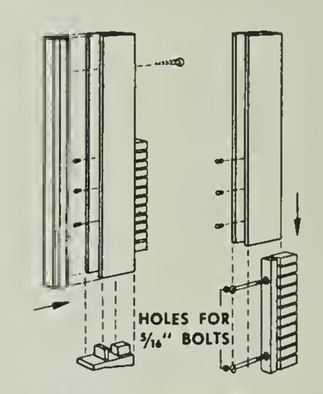
SM-7 BRACKET


1⁷⁄₁₆″ MIN.
ADJUSTABLE
ADJUSTABLE
⅜″
4″
6″
BC-170

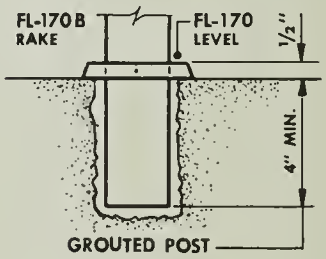
SM-8 BRACKET


⅜″
FP-170 LEVEL
FP-170-B RAKE
"L" DIMENSION
CF-170 SPECIFY
4″
6″
1⅜″
⅜″
SM-57
SM-58
REFER TO PAGE 150
FLOOR PLATE
FP-170 LEVEL
FP-170-B RAKE
⅜″

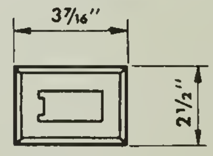
FLOOR TO CEILING


HOLES FOR ⁵⁄₁₆″ BOLTS

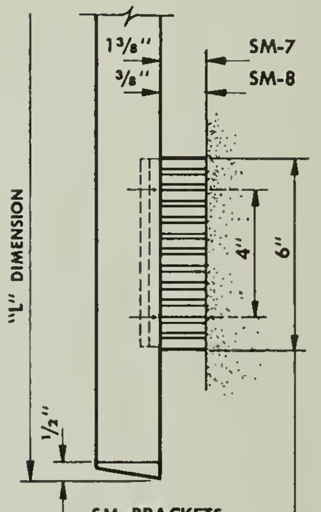
ASSEMBLY OF POST AND BRACKETS


FL-170B RAKE
FL-170 LEVEL
½″
4″ MIN.

GROUTED POST



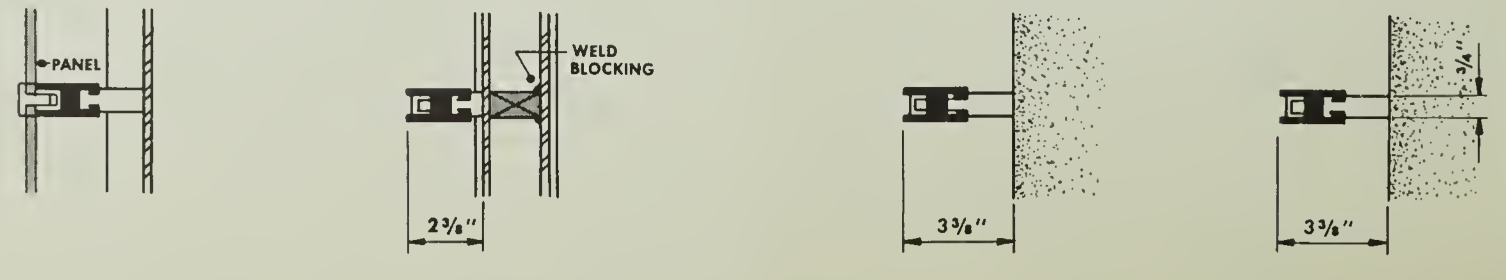
FL-170 FLANGE


1⅜″
⅜″
SM-7
SM-8
"L" DIMENSION
4″
6″
½″

SM- BRACKETS

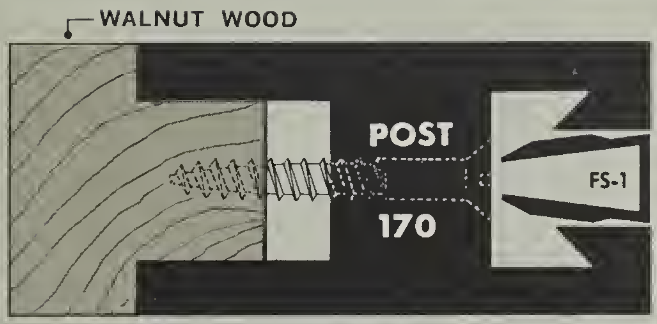
ALTERNATE MOUNTINGS

SCALE 1½″ = 1′-0″


PANEL
WELD BLOCKING
2⅜″
3⅜″
¾″
3⅜″

POST 170

DELUXE-LINE


WALNUT WOOD
POST
170
FS-1

SECTION FULL SIZE

POST SPACING——NOT TO EXCEED 4'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 4'-0" FOR LEVEL RAILING EXCEPT WHEN USING NO. 114 HANDRAIL MAXIMUM POST SPACING 2'-0". REFER TO PAGE 150

STARTING POSTS——INCLUDING THOSE WITH SIDE MOUNTED BRACKETS, SHOULD EXTEND INTO FLOOR FOR ADDED RIGIDITY.

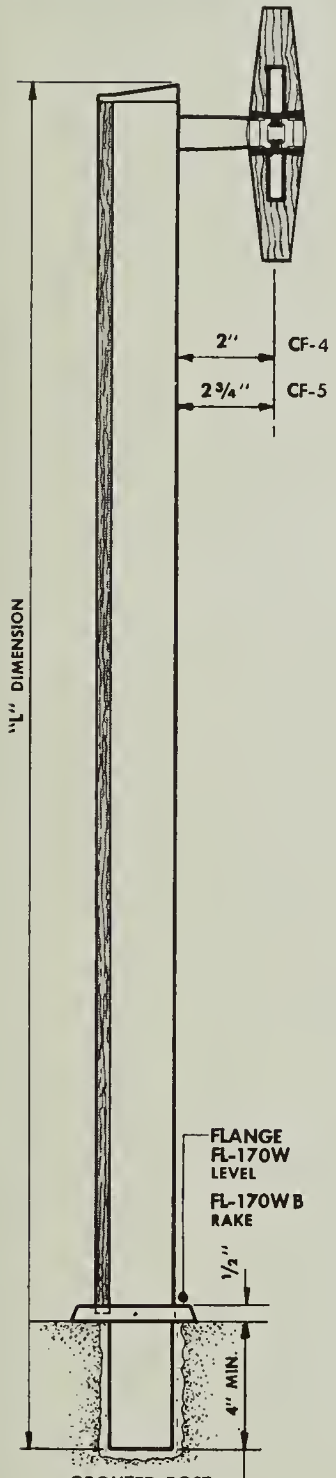
BOXED METAL STRINGERS——SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

CONCRETE STAIRS——USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE . . . ELIMINATES EXPANSION SHIELDS.

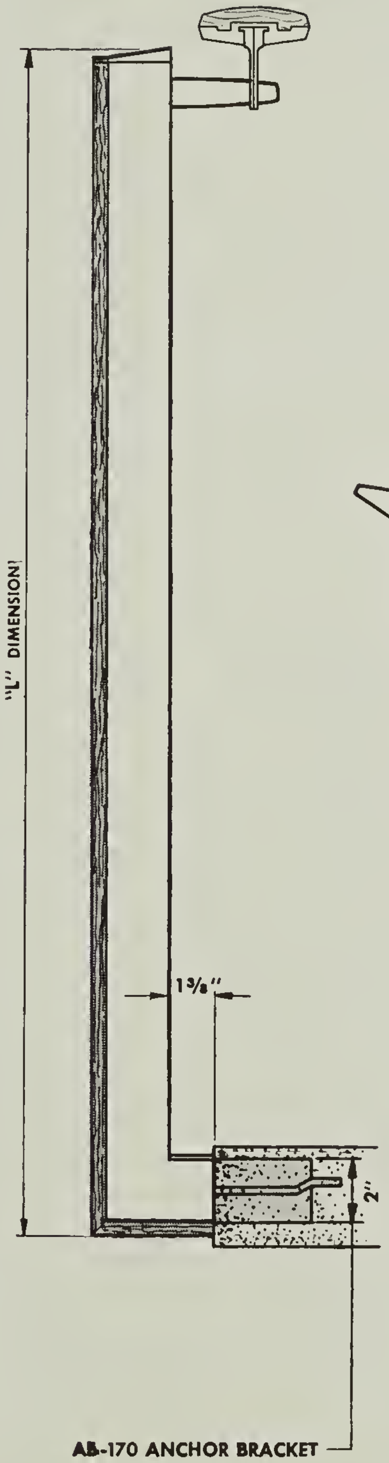
RIGIDITY——THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

FABRICATION——LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

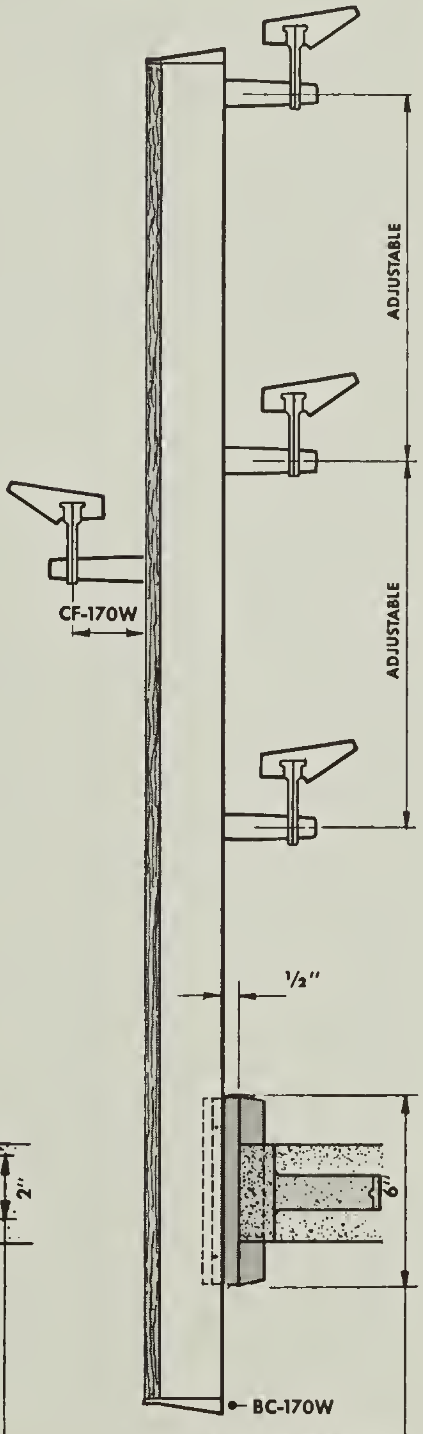
SERVICE TO ARCHITECT——OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.


2"
CF-4
2 3/4"
CF-5
"L" DIMENSION
FLANGE
FL-170W
LEVEL
FL-170WB
RAKE
1/2"
4" MIN.

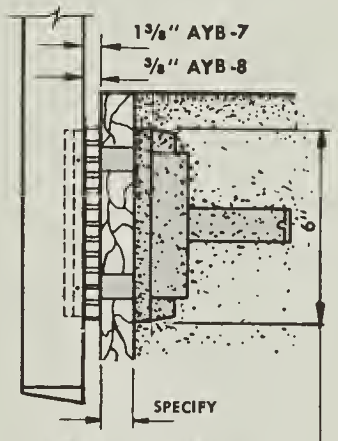
GROUTED POST


"L" DIMENSION
1 3/8"
2"

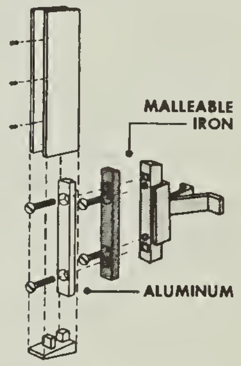
AB-170 ANCHOR BRACKET


ADJUSTABLE
ADJUSTABLE
CF-170W
1/2"
6"
BC-170W

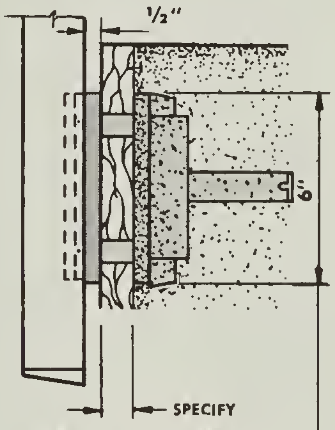
AU-170 ANCHOR BRACKET


1 3/8" AYB-7
3/8" AYB-8
6"
SPECIFY

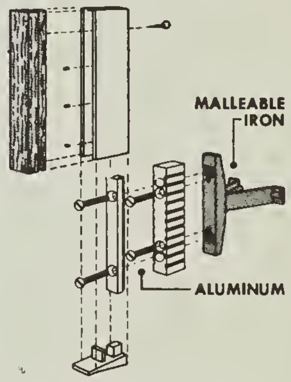
AYB- ANCHOR BRACKET


MALLEABLE IRON
ALUMINUM

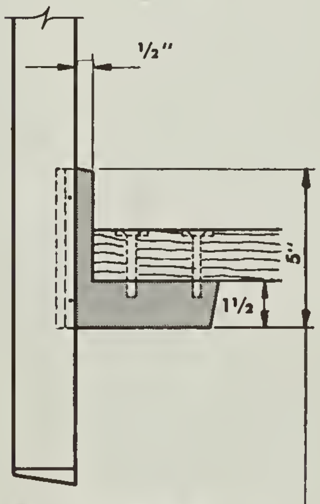
ASSEMBLY OF AU-ANCHOR BRACKET


1/2"
6"
SPECIFY

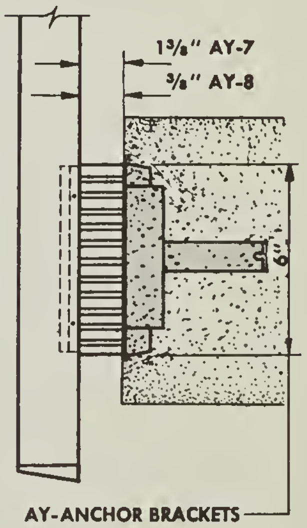
AUB-170 ANCHOR BRACKET


MALLEABLE IRON
ALUMINUM

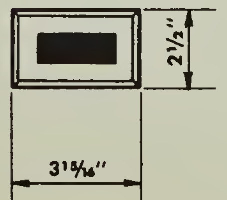
ASSEMBLY OF AY-ANCHOR BRACKET

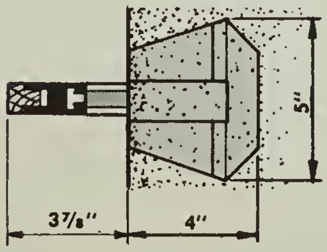


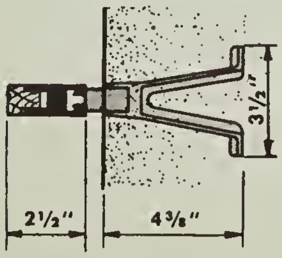
ABW-170 ANCHOR BRACKET

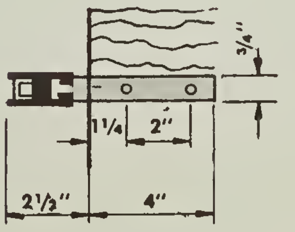

1 3/8" AY-7
3/8" AY-8
6"

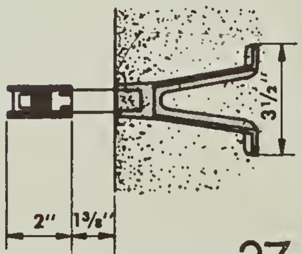
AY-ANCHOR BRACKETS

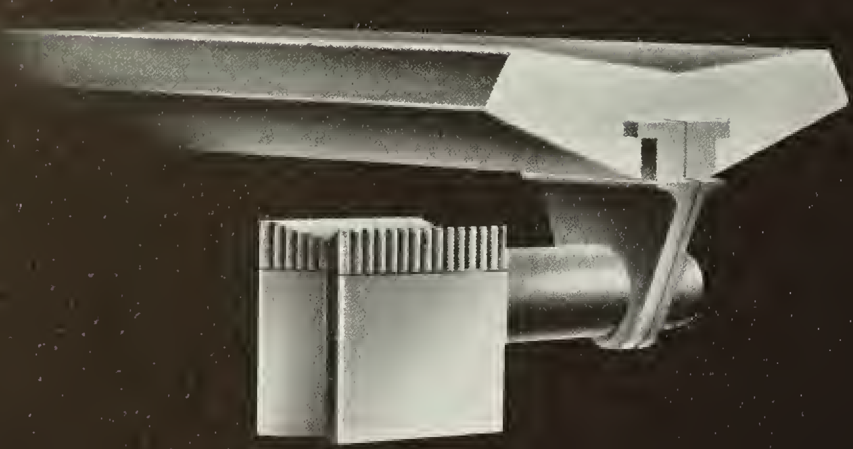


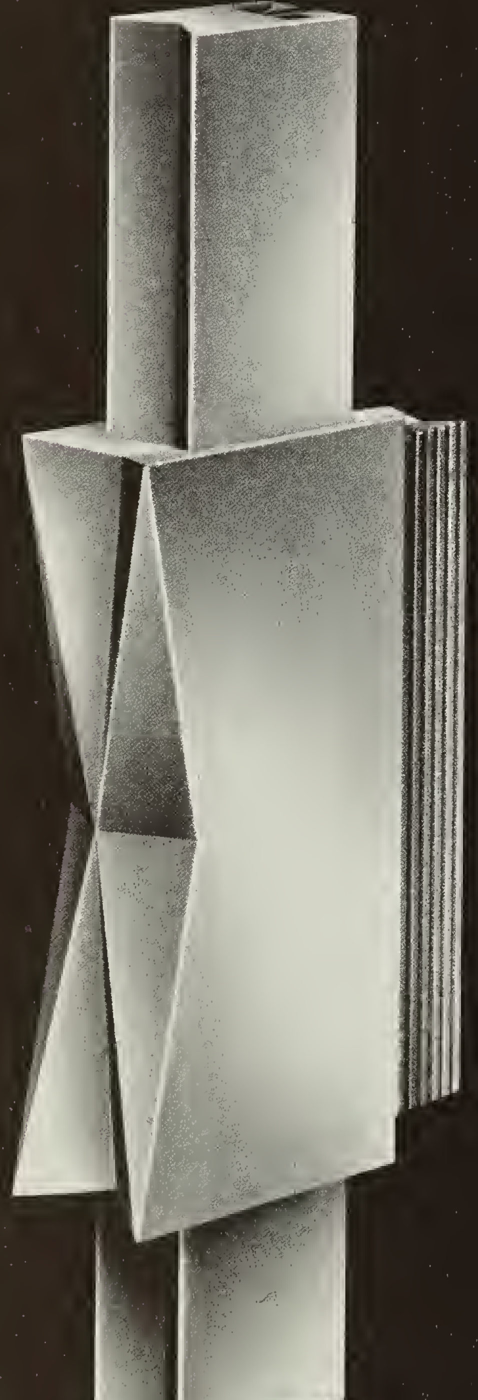


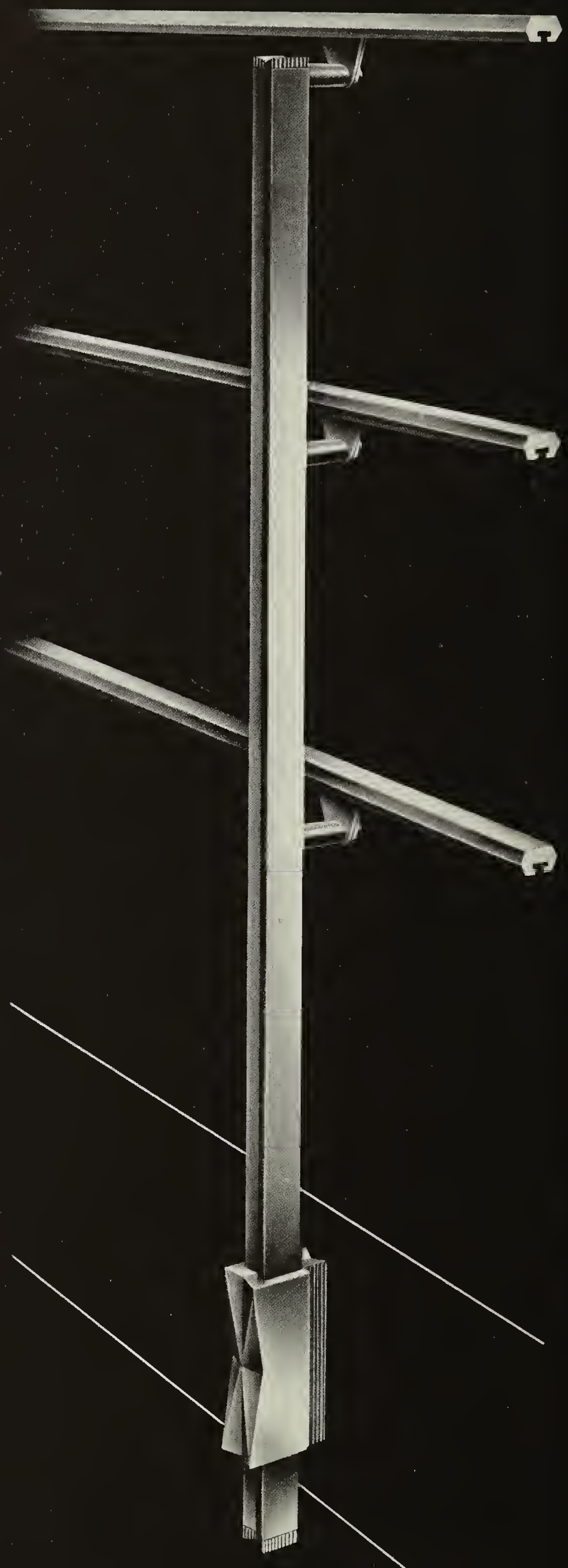



3/4"
1 1/4
2"
2 1/2"
4"

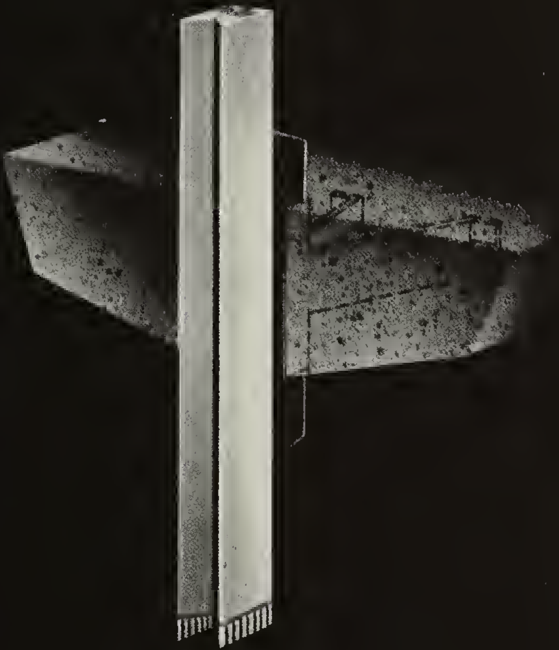


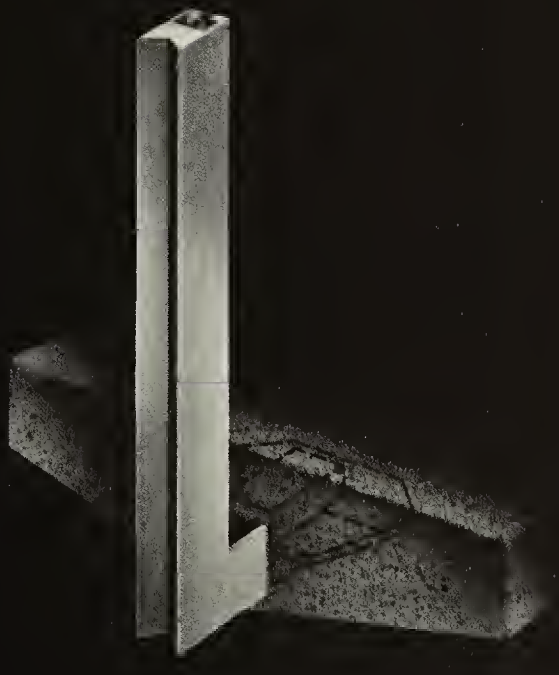






SUGGESTED APPLICATIONS





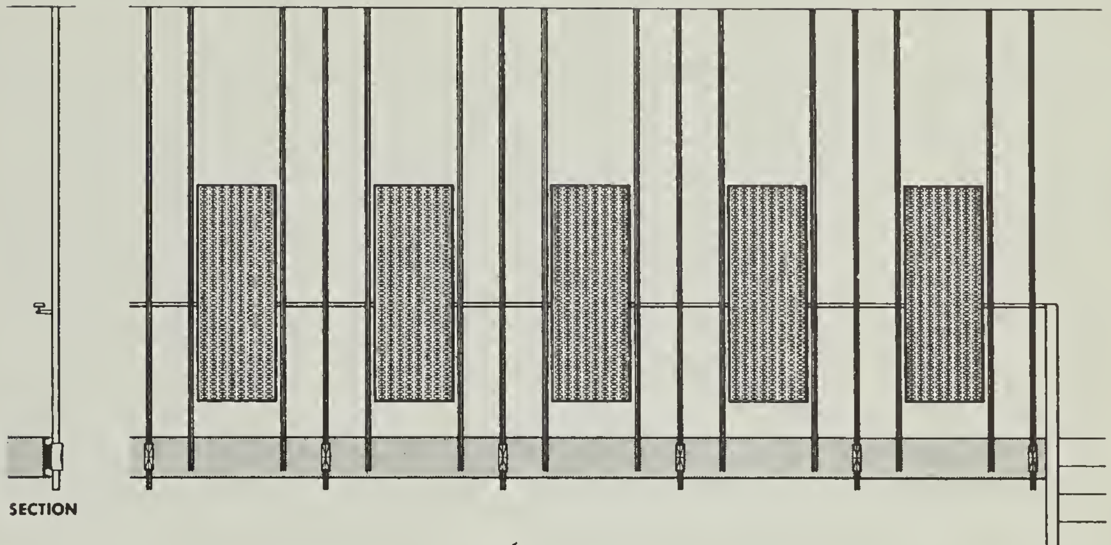


FIG. 520
POST 171 WITH GRILL-O-METRIC PANELS

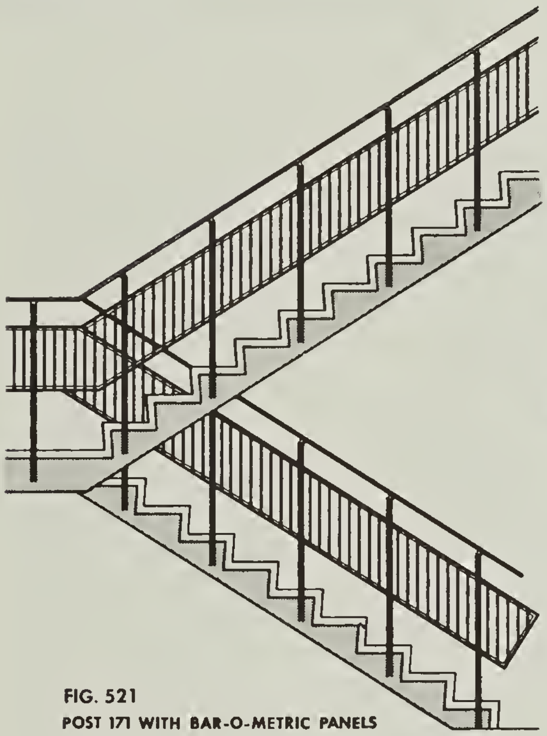


FIG. 521
POST 171 WITH BAR-O-METRIC PANELS

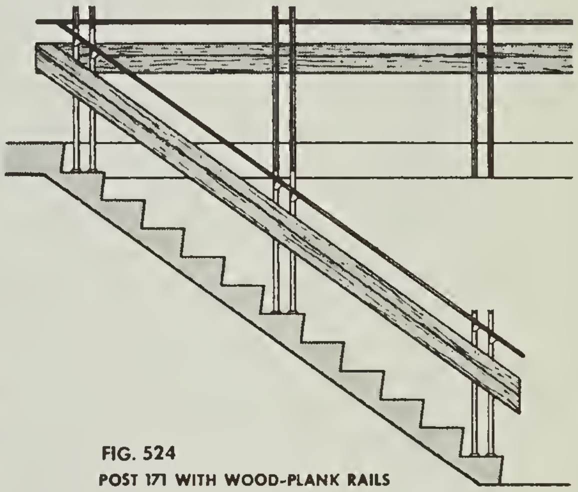


FIG. 524
POST 171 WITH WOOD-PLANK RAILS

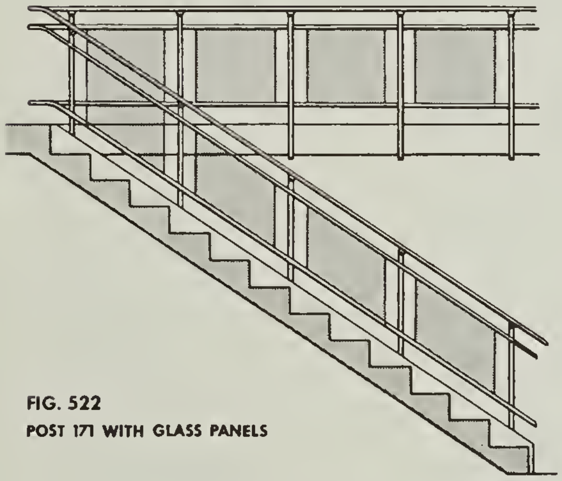


FIG. 522
POST 171 WITH GLASS PANELS

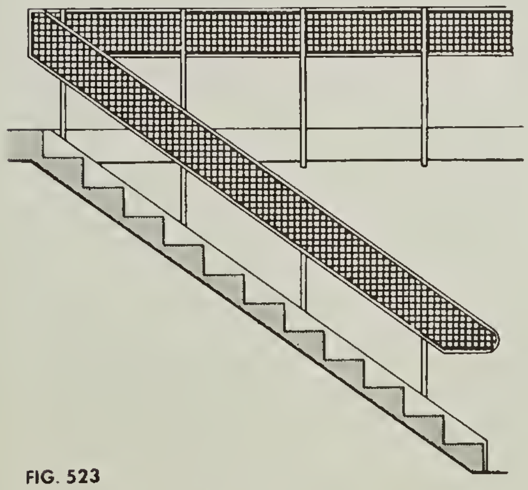
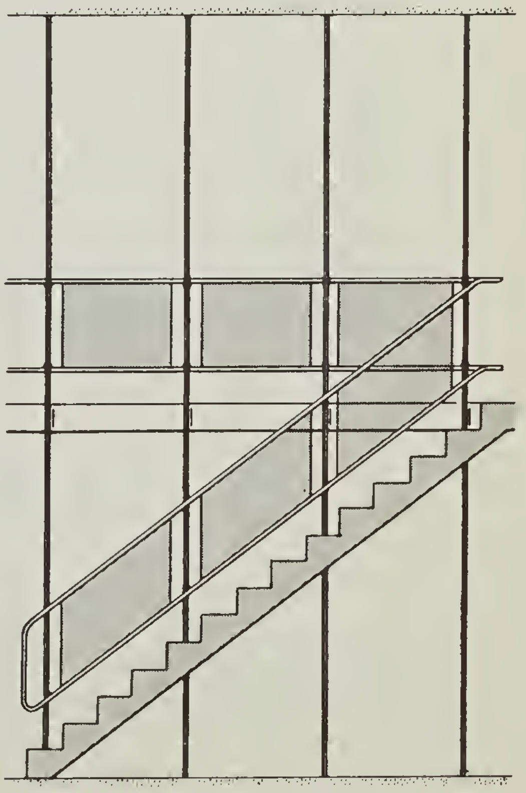
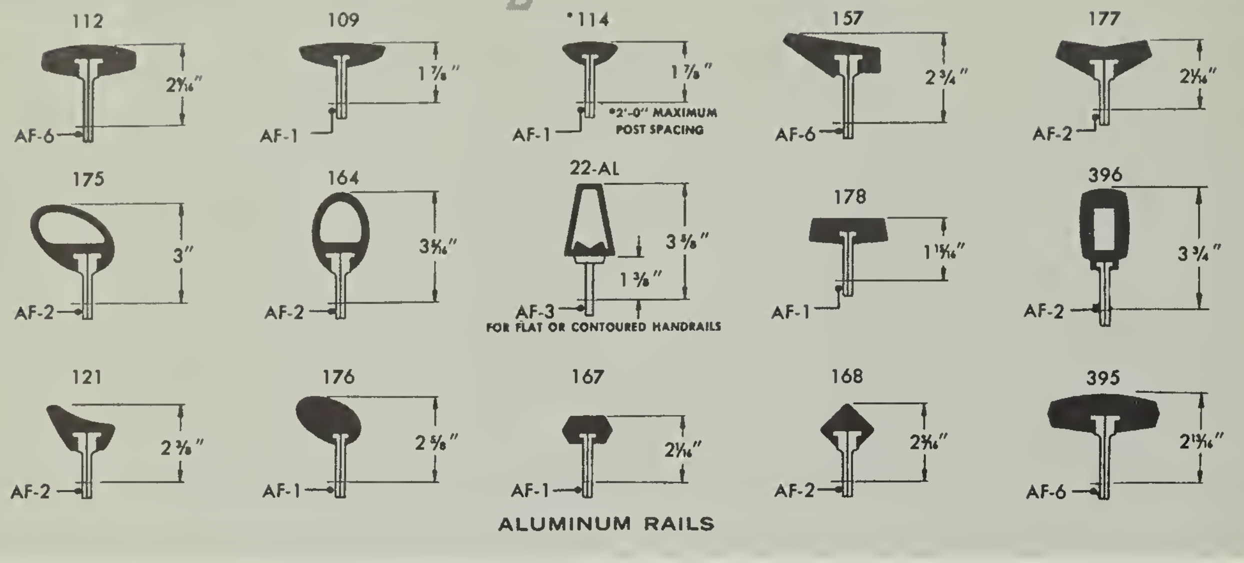


FIG. 523
POST 171 WITH WIRE PANELS

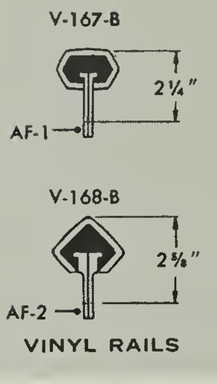


POST 171 FLOOR TO CEILING FIG. 525

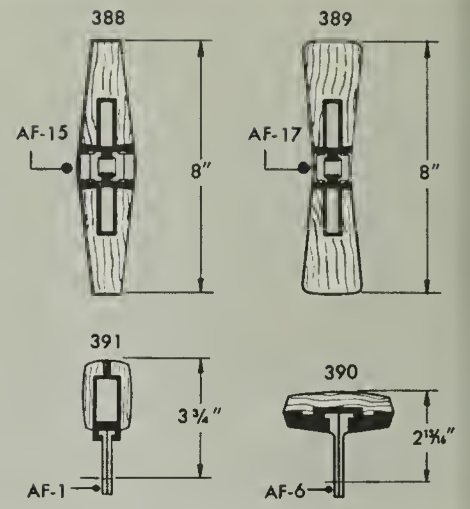

112
2⁹⁄₁₆"
AF-6
109
1⅞"
AF-1
*114
1⅞"
AF-1
*2'-0" MAXIMUM POST SPACING
157
2¾"
AF-6
177
2⁵⁄₁₆"
AF-2
175
3"
AF-2
164
3⁵⁄₁₆"
AF-2
22-AL
3⅝"
1⅜"
AF-3
FOR FLAT OR CONTOURED HANDRAILS
178
1¹⁵⁄₁₆"
AF-1
396
3¾"
AF-2
121
2⅜"
AF-2
176
2⅝"
AF-1
167
2⁵⁄₁₆"
AF-1
168
2⁹⁄₁₆"
AF-2
395
2¹³⁄₁₆"
AF-6

ALUMINUM RAILS

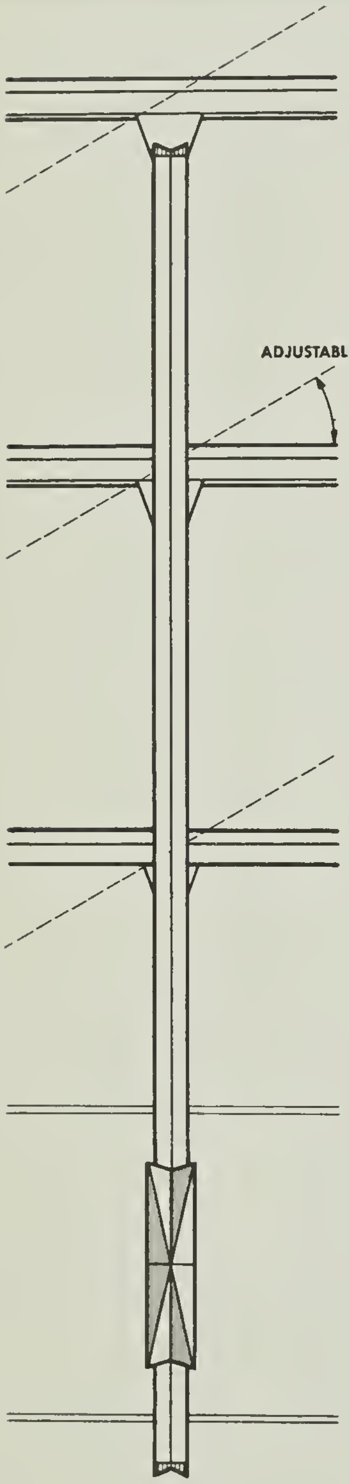
FULL SIZE SECTIONS PAGES — 146-149


V-167-B
2¼"
AF-1
V-168-B
2⅝"
AF-2

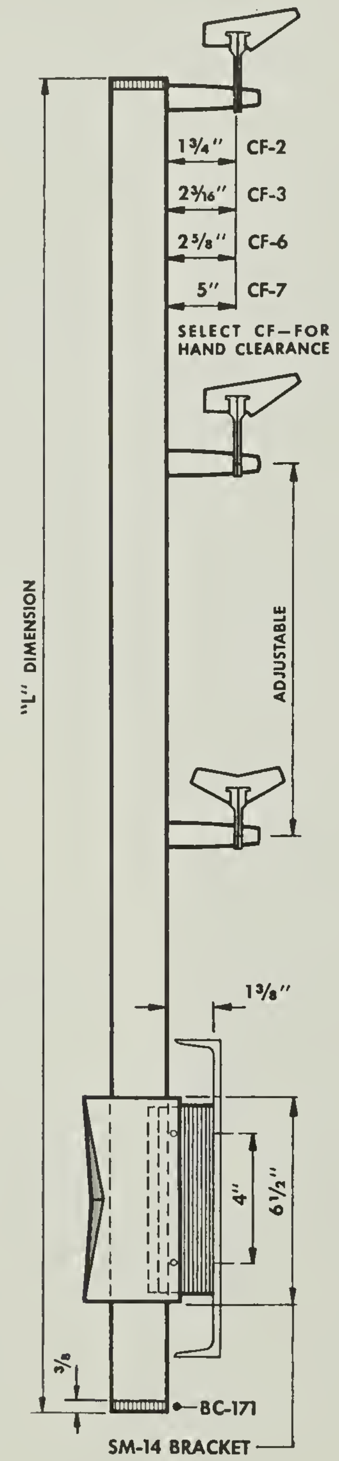
VINYL RAILS


388
AF-15
8"
389
AF-17
8"
391
3¾"
AF-1
390
2¹³⁄₁₆"
AF-6

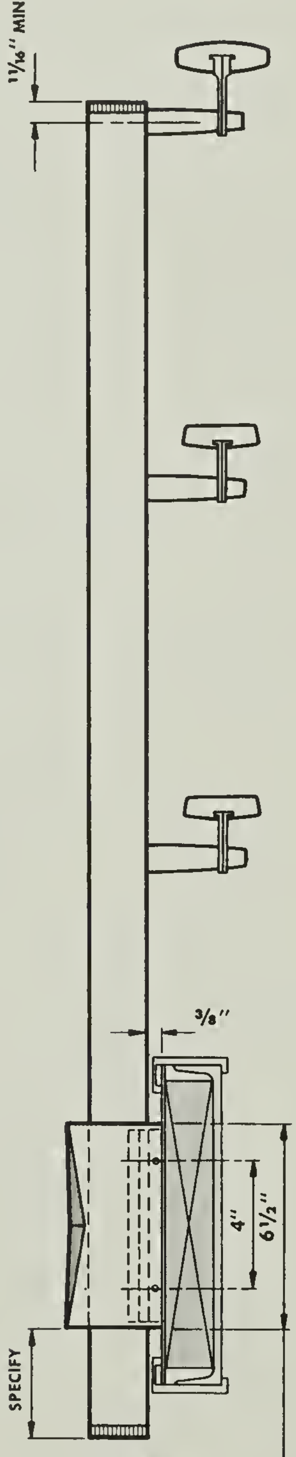
WOOD RAILS


ADJUSTABLE

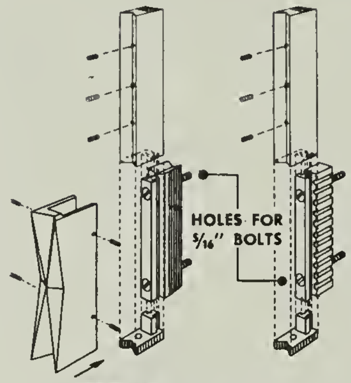
SIDE ELEVATION


1¾" CF-2
2³⁄₁₆" CF-3
2⅝" CF-6
5" CF-7
SELECT CF—FOR HAND CLEARANCE
"L" DIMENSION
ADJUSTABLE
1⅜"
4"
6½"
⅜
BC-171

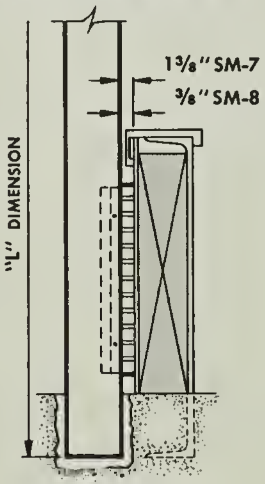
SM-14 BRACKET


1⁹⁄₁₆" MIN.
⅜"
4"
6½"
SPECIFY

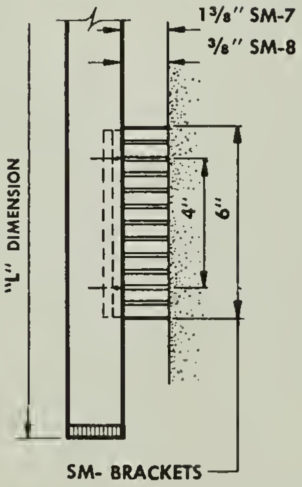
SM-13 BRACKET


HOLES FOR ⁵⁄₁₆" BOLTS

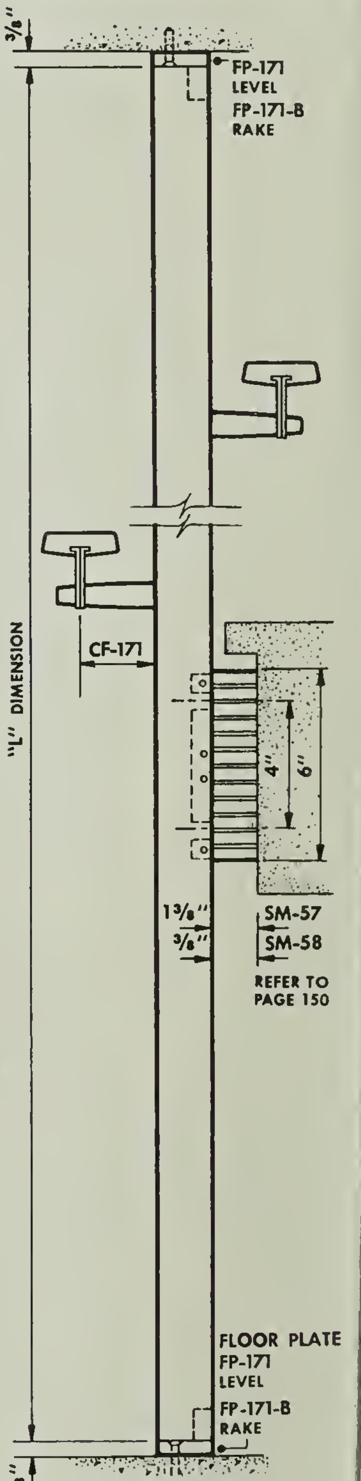
ASSEMBLY OF POST AND BRACKETS


1⅜" SM-7
⅜" SM-8
"L" DIMENSION

STARTING POST

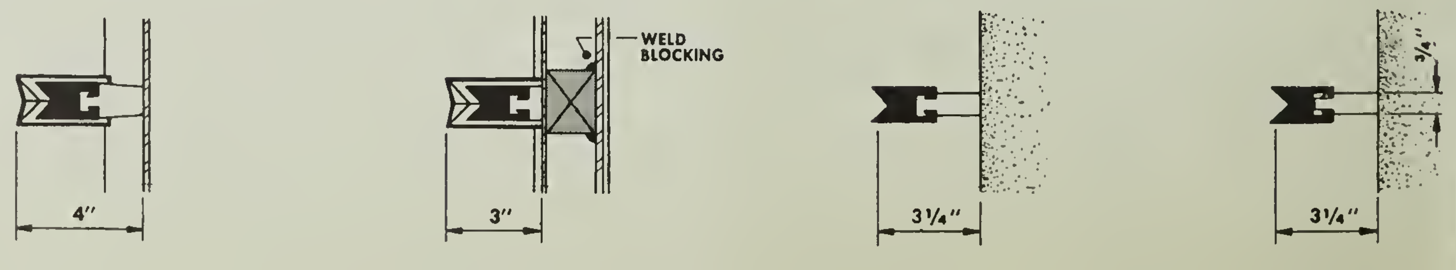

1⅜" SM-7
⅜" SM-8
"L" DIMENSION
4"
6"

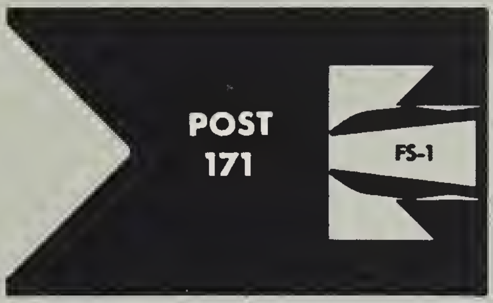
SM- BRACKETS


⅜"
FP-171 LEVEL
FP-171-B RAKE
CF-171
"L" DIMENSION
4"
6"
1⅜"
⅜"
SM-57
SM-58
REFER TO PAGE 150
FLOOR PLATE FP-171 LEVEL
FP-171-B RAKE
⅜"

FLOOR TO CEILING

ALTERNATE MOUNTINGS
SCALE 1½" = 1'-0"


WELD BLOCKING
4"
3"
3¼"
¾"
3¼"


POST
171
FS-1

SECTION FULL SIZE

POST SPACING—NOT TO EXCEED 4'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 4'-0" FOR LEVEL RAILING EXCEPT WHEN USING NO. 114 HANDRAIL MAXIMUM POST SPACING 2'-0" REFER TO PAGE 150

STARTING POSTS—INCLUDING THOSE WITH SIDE MOUNTED BRACKETS, SHOULD EXTEND INTO FLOOR FOR ADDED RIGIDITY.

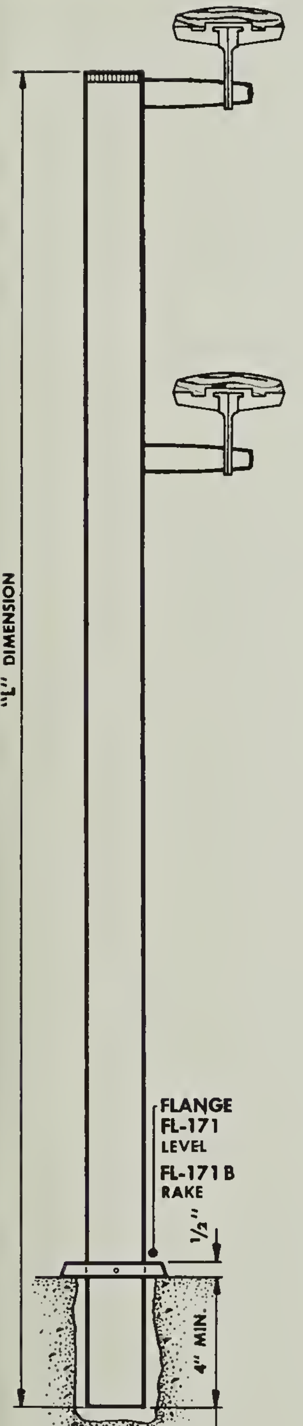
BOXED METAL STRINGERS—SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

CONCRETE STAIRS—USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE . . . ELIMINATES EXPANSION SHIELDS.

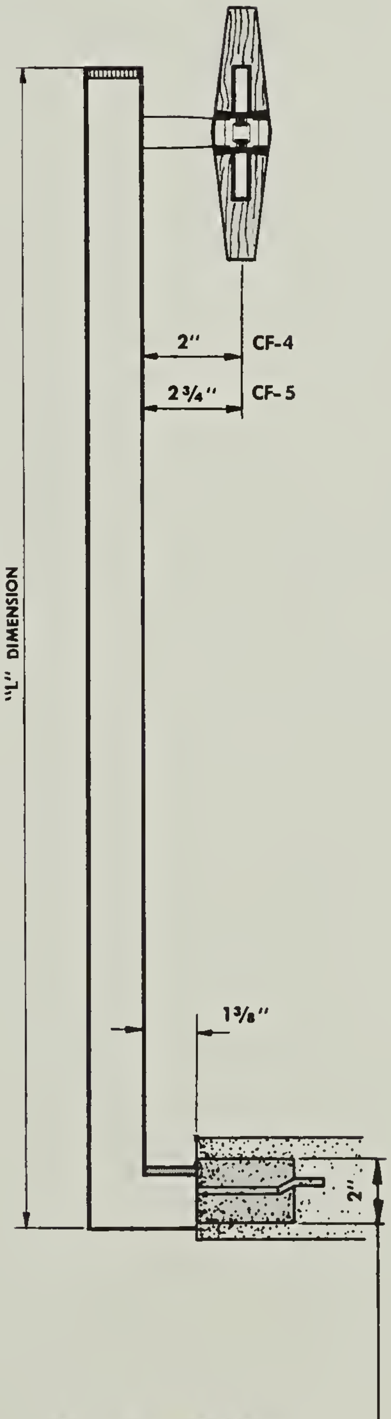
RIGIDITY—THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

FABRICATION—LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

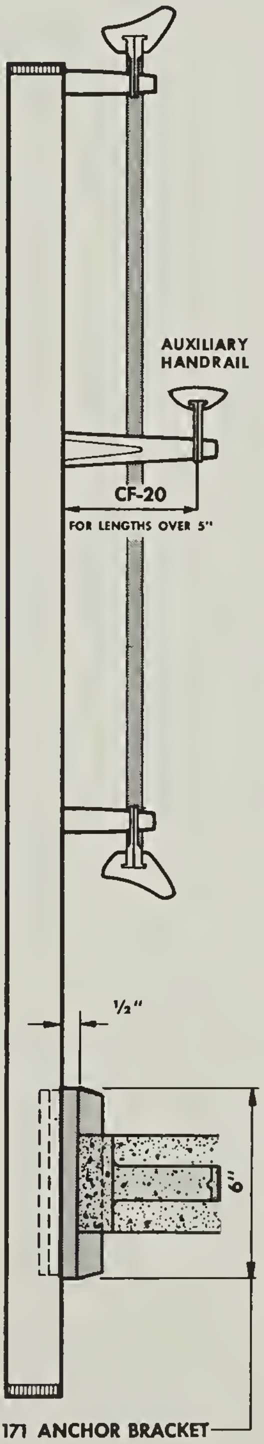
SERVICE TO ARCHITECT—OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.


"L" DIMENSION
FLANGE
FL-171
LEVEL
FL-171 B
RAKE
1/2"
4" MIN.

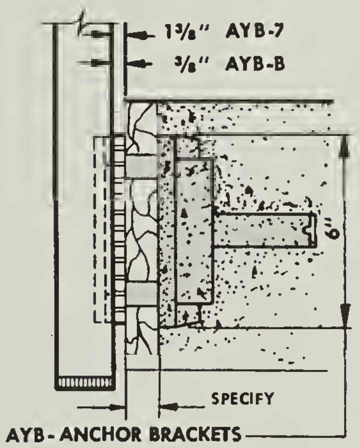
GROUTED POST


"L" DIMENSION
2" CF-4
2¾" CF-5
1⅜"
2"

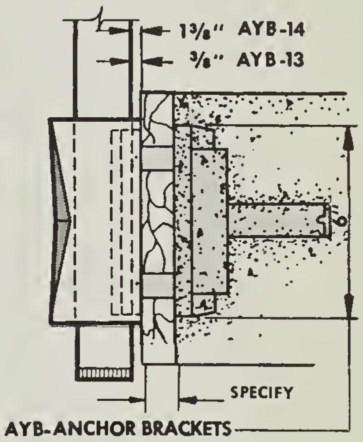
AB-171 ANCHOR BRACKET


AUXILIARY HANDRAIL
CF-20
FOR LENGTHS OVER 5"
1/2"
6"

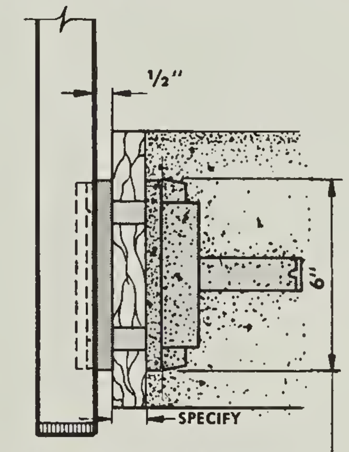
AU-171 ANCHOR BRACKET


1⅜" AYB-7
⅜" AYB-B
6"
SPECIFY

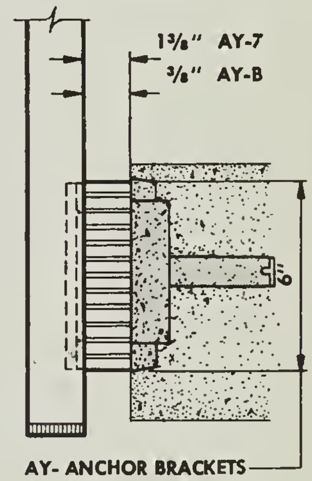
AYB- ANCHOR BRACKETS


1⅜" AYB-14
⅜" AYB-13
6"
SPECIFY

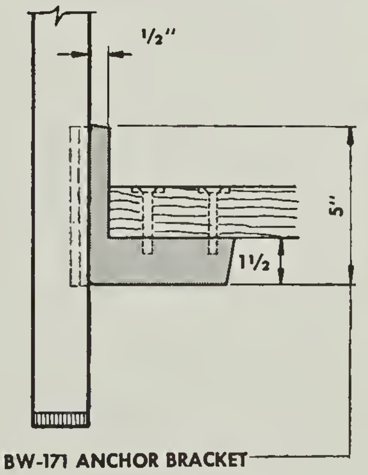
AYB- ANCHOR BRACKETS


1/2"
6"
SPECIFY

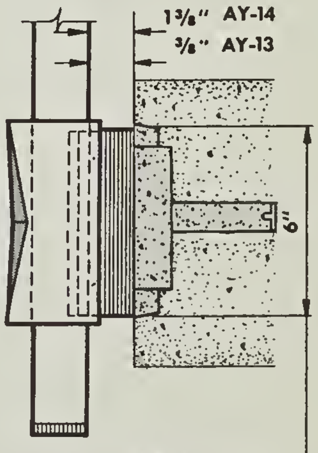
AUB-171 ANCHOR BRACKET


1⅜" AY-7
⅜" AY-B
6"

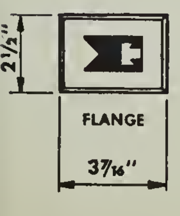
AY- ANCHOR BRACKETS



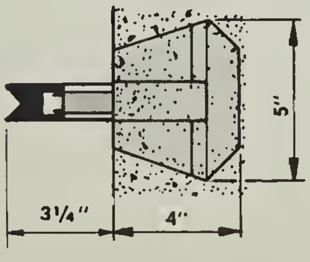
ABW-171 ANCHOR BRACKET

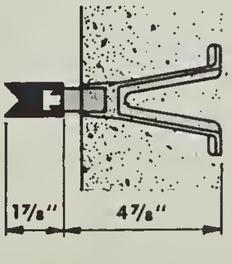

1⅜" AY-14
⅜" AY-13
6"

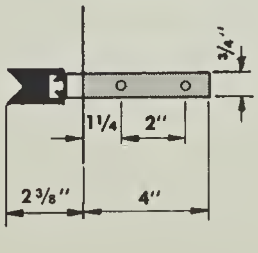
AY-ANCHOR BRACKETS

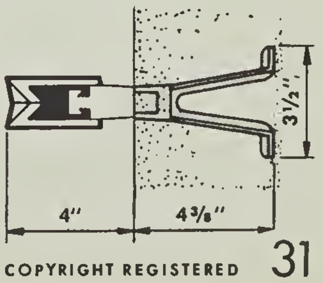


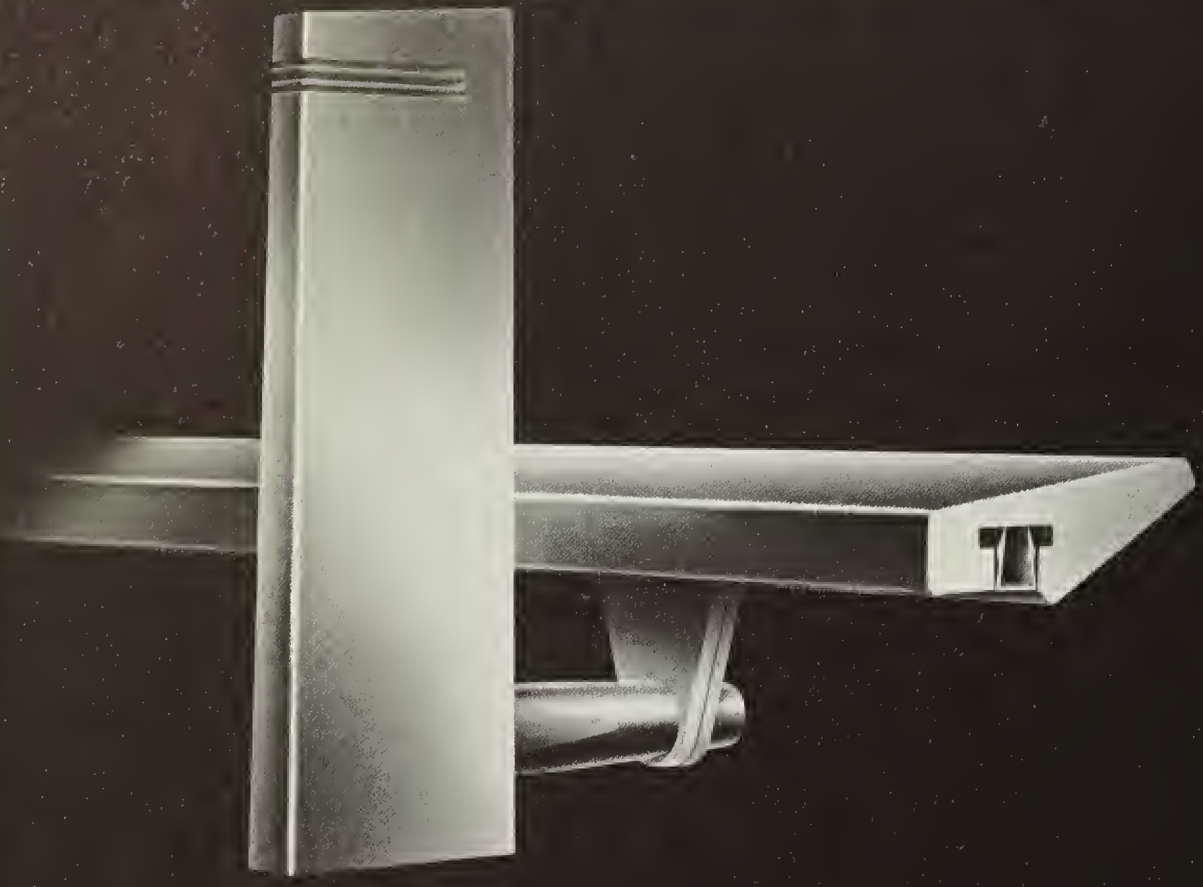
FLANGE

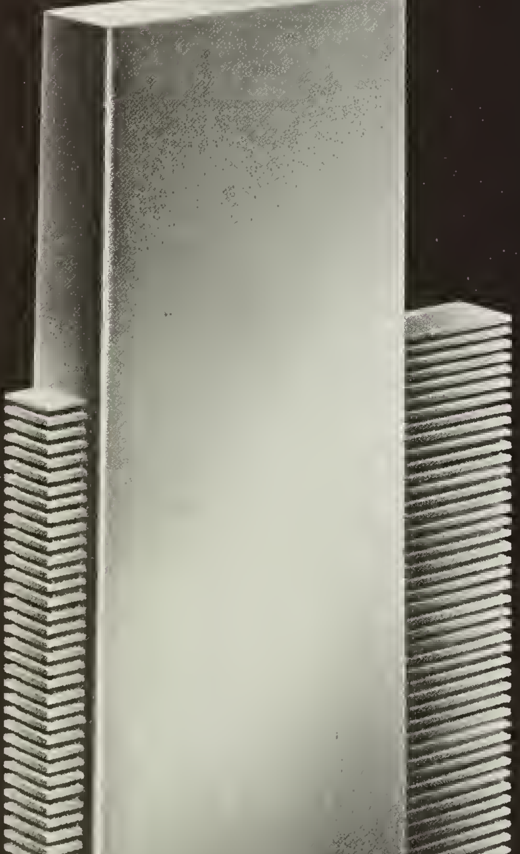


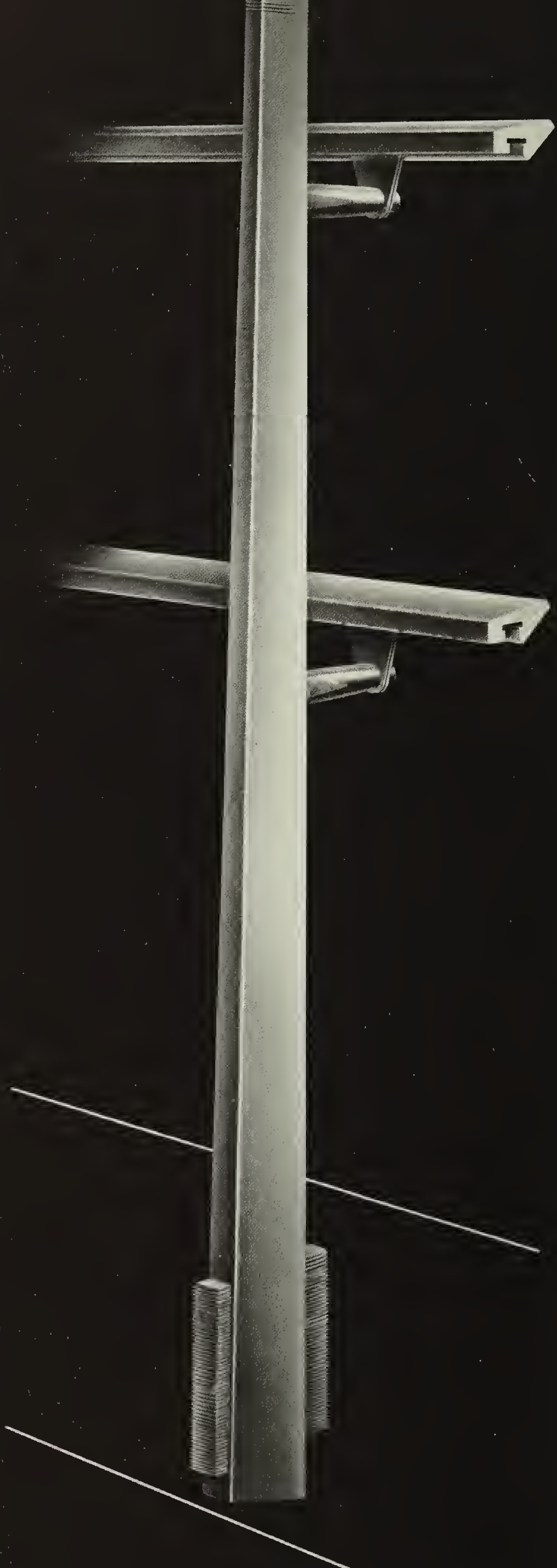






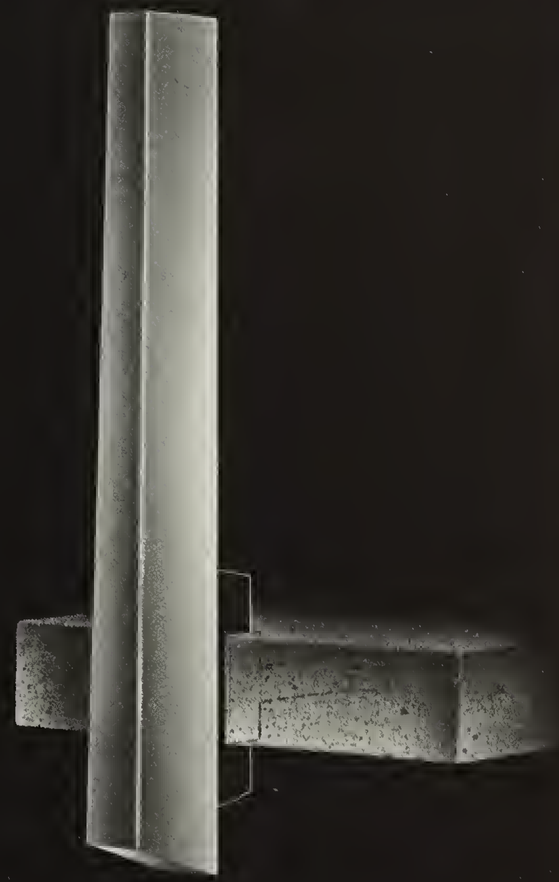


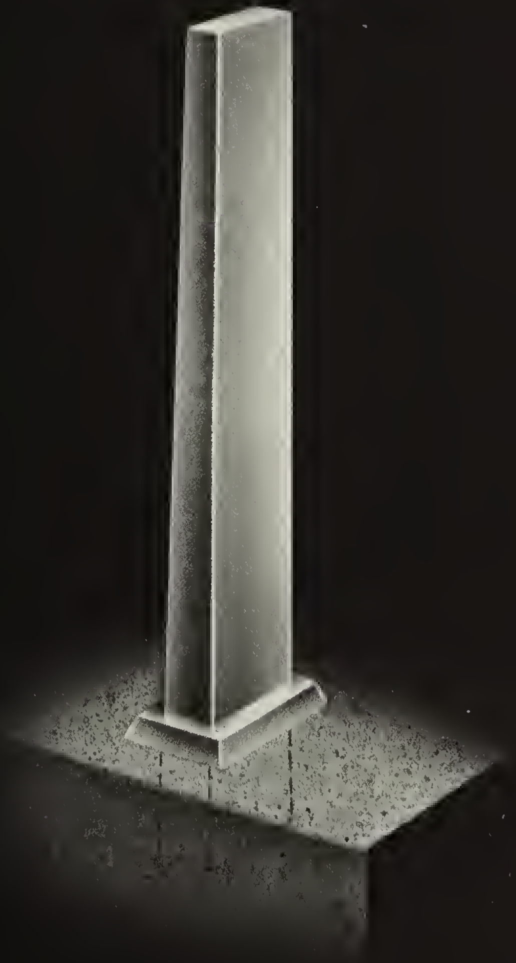




SUGGESTED APPLICATIONS

DELUXE-LINE





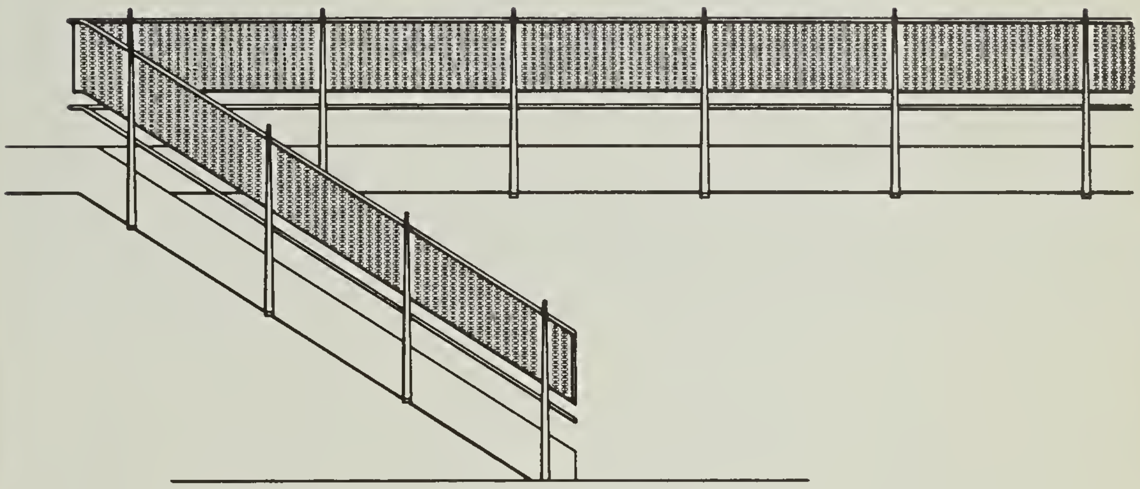


FIG. 809 POST 199 WITH GRILL-O-METRIC PANELS

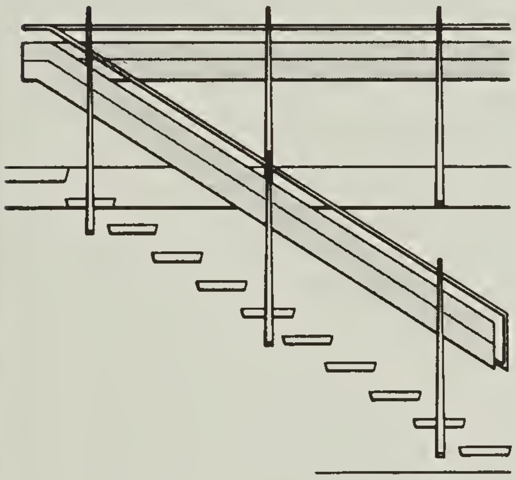


FIG. 810 POST 199 WITH WOOD-PANELS

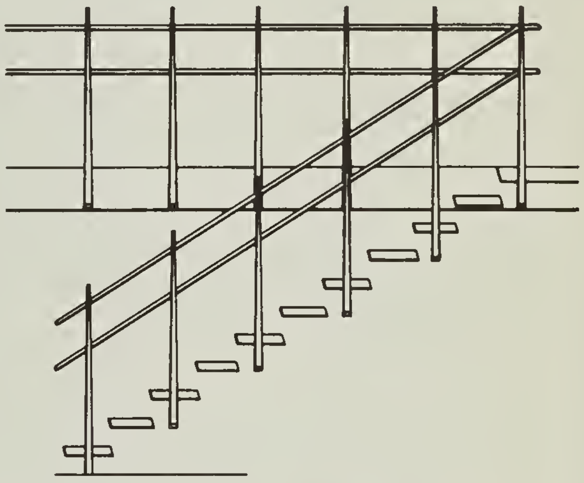


FIG. 813 POST 199 WITH DOUBLE LINE RAIL

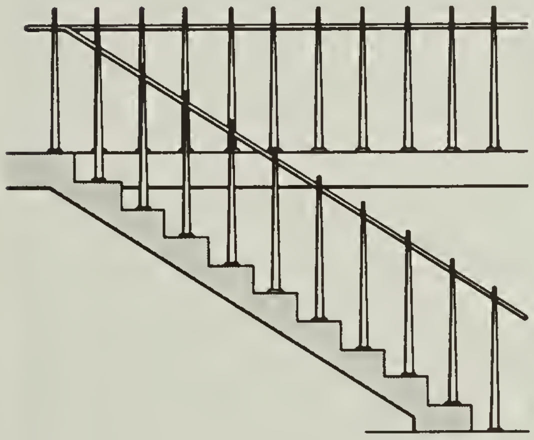


FIG. 811 POST 199 WITH SINGLE LINE RAIL

DETAILS

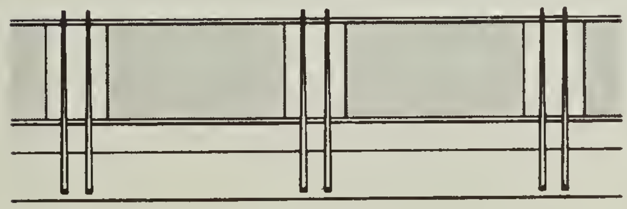


FIG. 812 POST 199 WITH GLASS PANELS

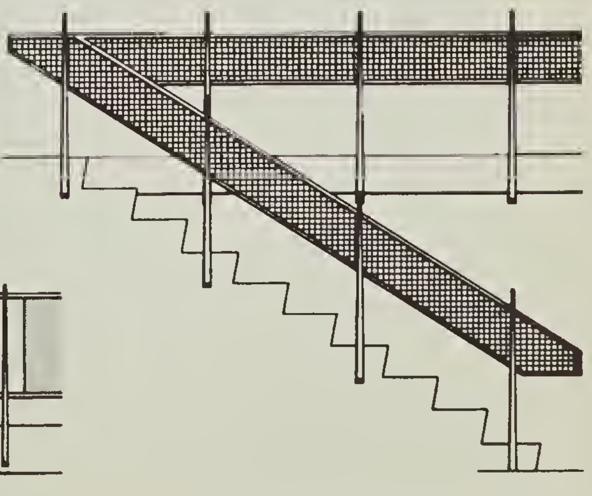
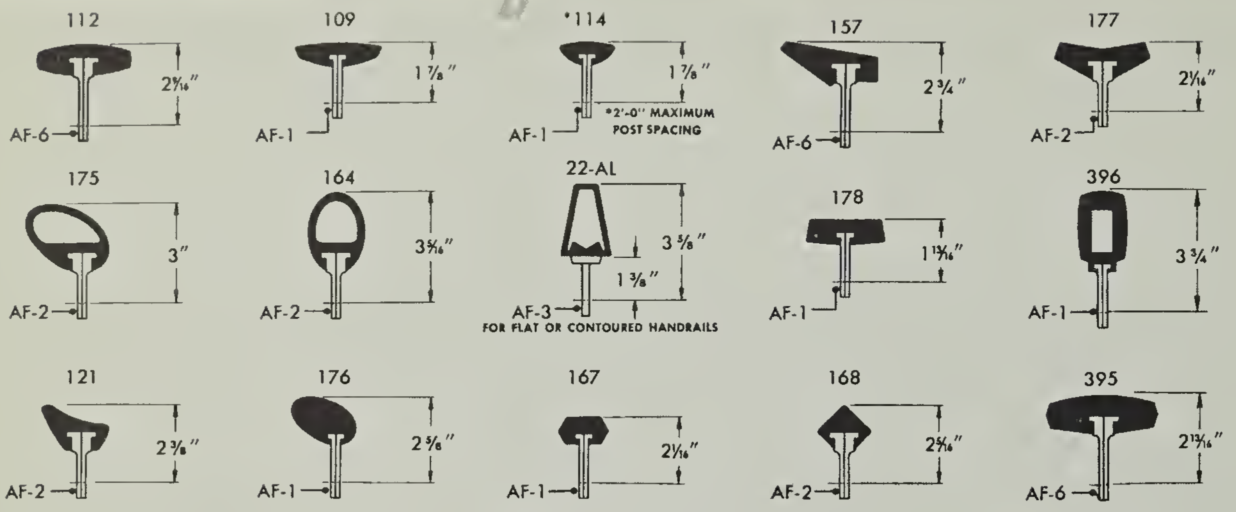
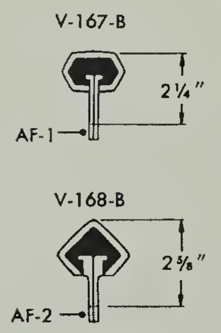


FIG. 814 POST 199 WITH WIRE PANELS

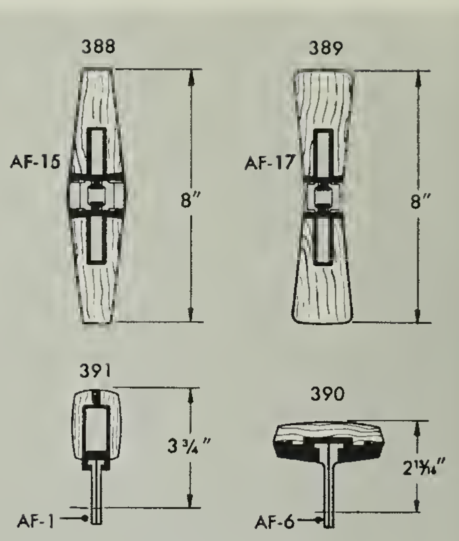

112
2⁹⁄₁₆"
AF-6
109
1⅞"
AF-1
*114
1⅞"
*2'-0" MAXIMUM POST SPACING
AF-1
157
2¾"
AF-6
177
2⅛"
AF-2
175
3"
AF-2
164
3⁵⁄₁₆"
AF-2
22-AL
3⅝"
1⅜"
AF-3
FOR FLAT OR CONTOURED HANDRAILS
178
1¹³⁄₁₆"
AF-1
396
3¾"
AF-1
121
2⅜"
AF-2
176
2⅝"
AF-1
167
2⅛"
AF-1
168
2⁵⁄₁₆"
AF-2
395
2¹³⁄₁₆"
AF-6

ALUMINUM RAILS

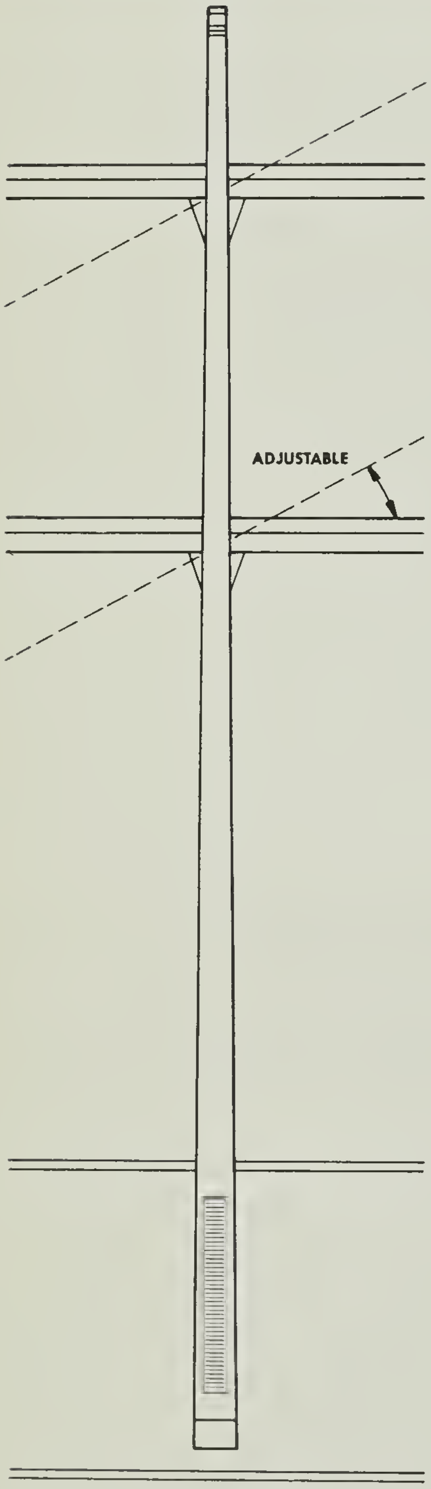
FULL SIZE SECTIONS
PAGES — 146-149


V-167-B
2¼"
AF-1
V-168-B
2⅝"
AF-2

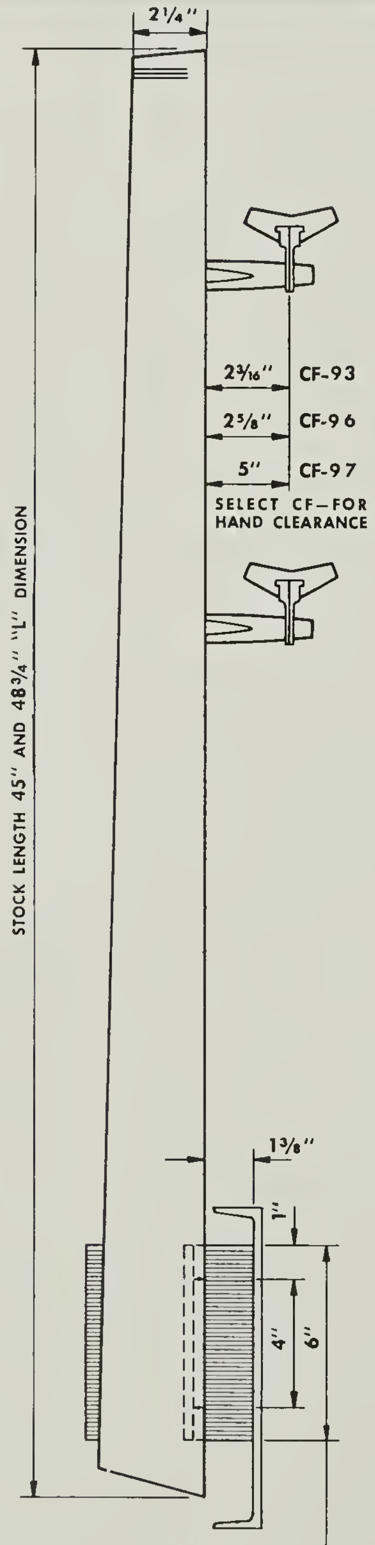
VINYL RAILS


388
AF-15
8"
389
AF-17
8"
391
3¾"
AF-1
390
2¹³⁄₁₆"
AF-6

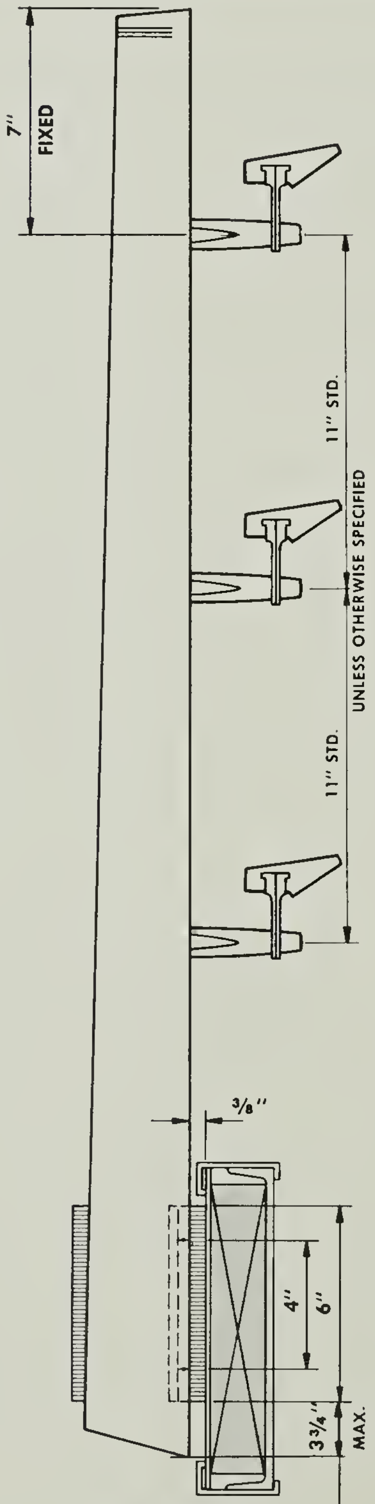
WOOD RAILS


ADJUSTABLE

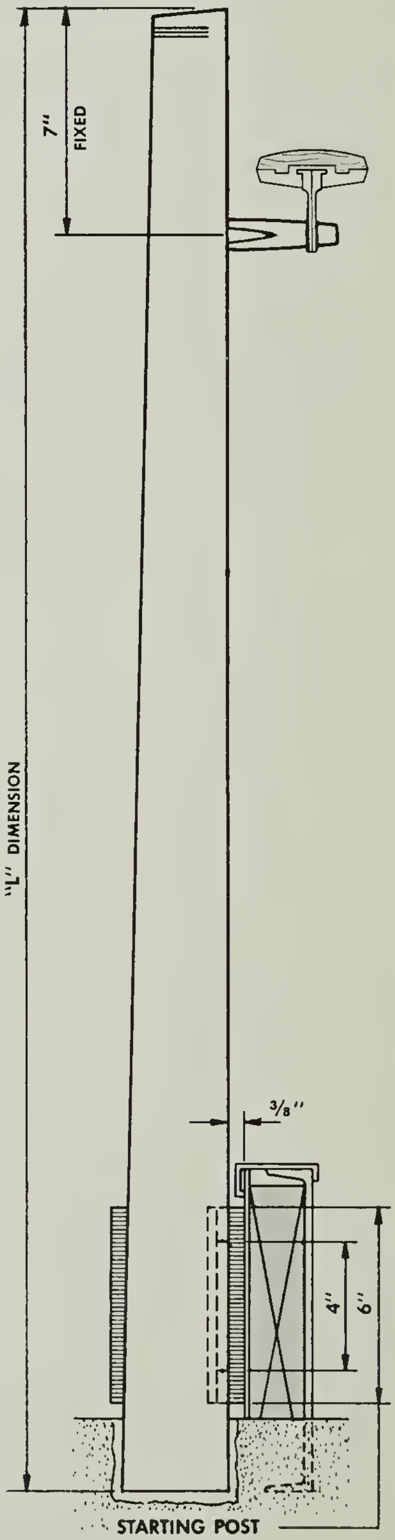
SIDE ELEVATION


2¼"
STOCK LENGTH 45" AND 48¾" "L" DIMENSION
2³⁄₁₆" CF-93
2⅝" CF-96
5" CF-97
SELECT CF—FOR HAND CLEARANCE
1⅜"
1"
4"
6"

SM-19 BRACKET

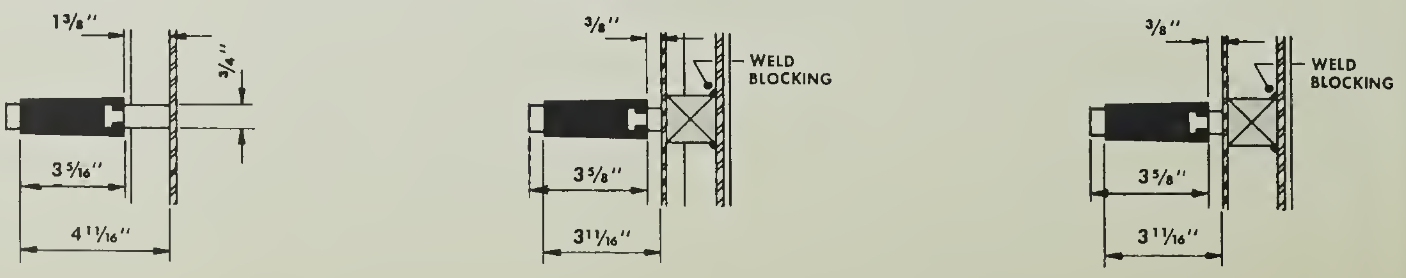

7" FIXED
11" STD.
UNLESS OTHERWISE SPECIFIED
11" STD.
⅜"
4"
6"
3¾" MAX.

SM-69 BRACKET


7" FIXED
"L" DIMENSION
⅜"
4"
6"

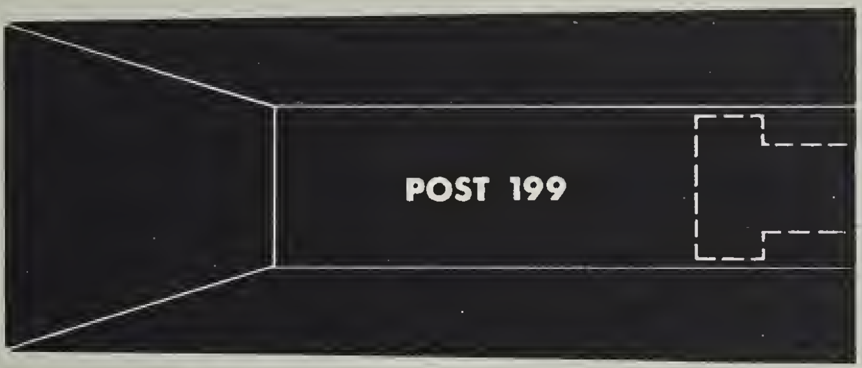
STARTING POST

ALTERNATE MOUNTINGS
SCALE 1½" = 1'-0"


1⅜"
¾"
3⁵⁄₁₆"
4¹¹⁄₁₆"
⅜"
WELD BLOCKING
3⅝"
3¹¹⁄₁₆"
⅜"
WELD BLOCKING
3⅝"
3¹¹⁄₁₆"

POST 199

DELUXE-LINE



SECTION FULL SIZE

POST SPACING — NOT TO EXCEED 4'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 4'-0" FOR LEVEL RAILING EXCEPT WHEN USING NO. 114 HANDRAIL MAXIMUM POST SPACING 2'-0". REFER TO PAGE 150

STARTING POSTS — INCLUDING THOSE WITH SIDE MOUNTED BRACKETS, SHOULD EXTEND INTO FLOOR FOR ADDED RIGIDITY.

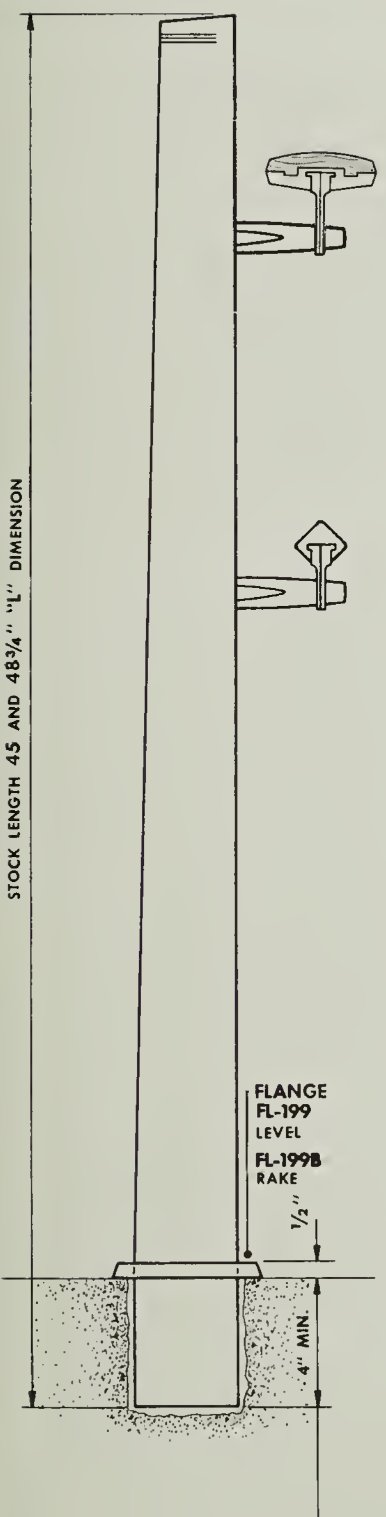
BOXED METAL STRINGERS — SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

CONCRETE STAIRS — USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE.

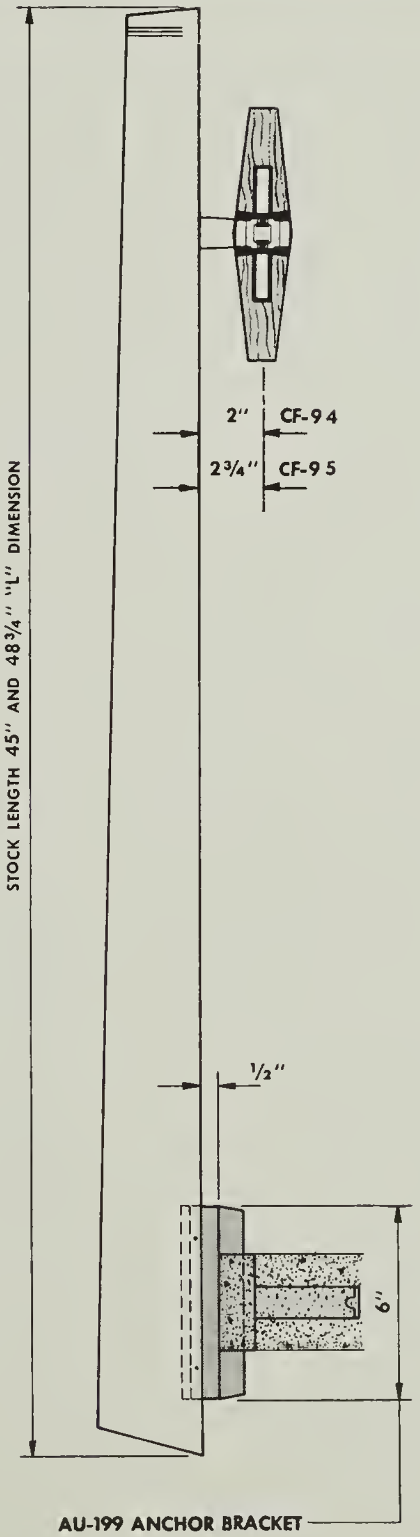
RIGIDITY — THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

FABRICATION — LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

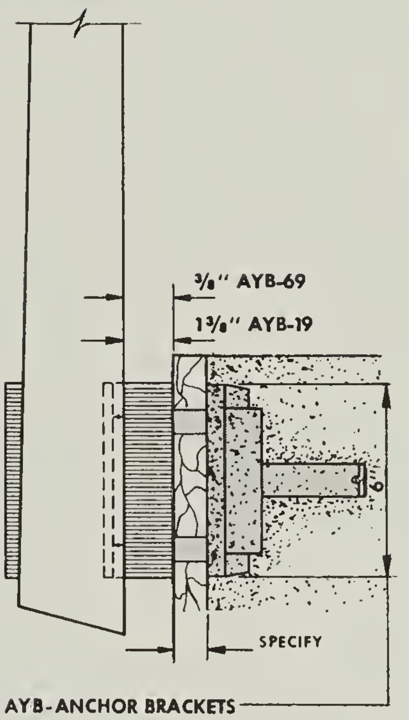
SERVICE TO ARCHITECT — OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.


STOCK LENGTH 45 AND 48¾" "L" DIMENSION
FLANGE
FL-199
LEVEL
FL-199B
RAKE
½"
4" MIN.

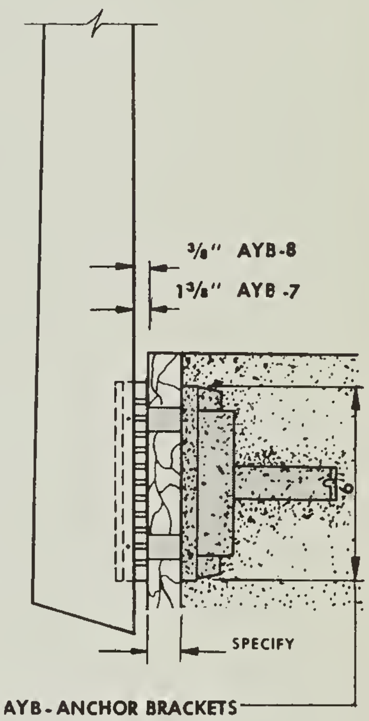
GROUTED POST


STOCK LENGTH 45" AND 48¾" "L" DIMENSION
2" CF-94
2¾" CF-95
½"
6"

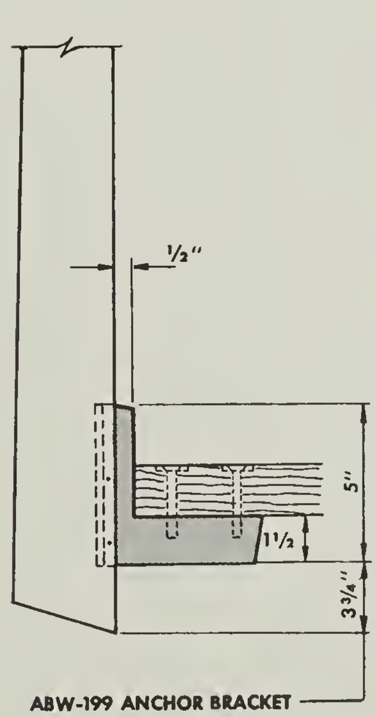
AU-199 ANCHOR BRACKET


⅜" AYB-69
1⅜" AYB-19
6"
SPECIFY

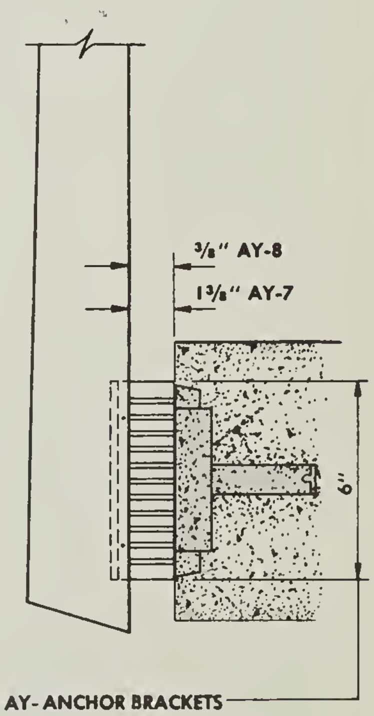
AYB-ANCHOR BRACKETS


⅜" AYB-8
1⅜" AYB-7
6"
SPECIFY

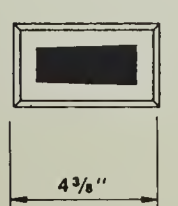
AYB-ANCHOR BRACKETS

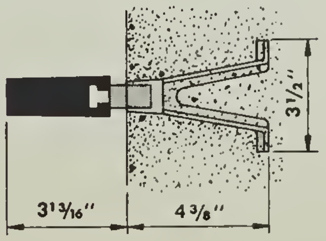


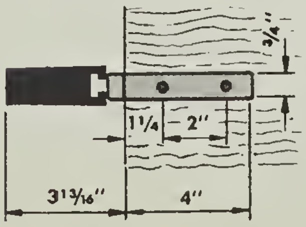
ABW-199 ANCHOR BRACKET

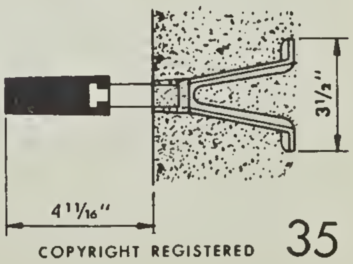

⅜" AY-8
1⅜" AY-7
6"

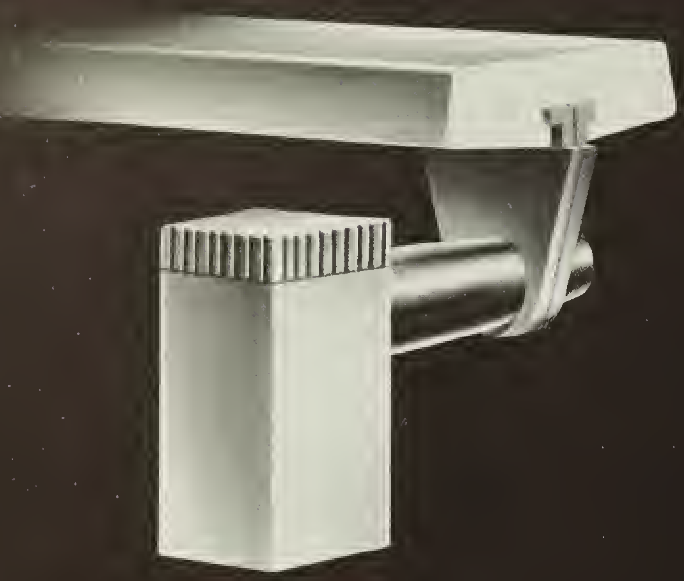
AY-ANCHOR BRACKETS

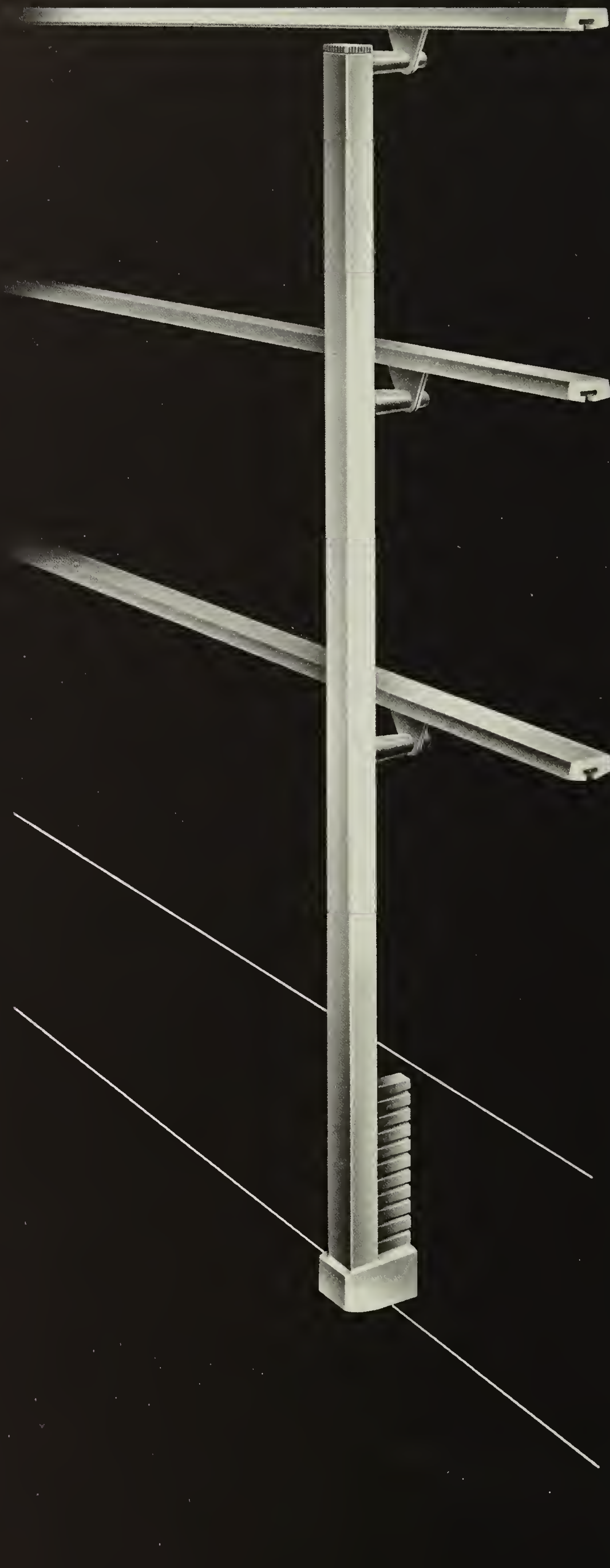


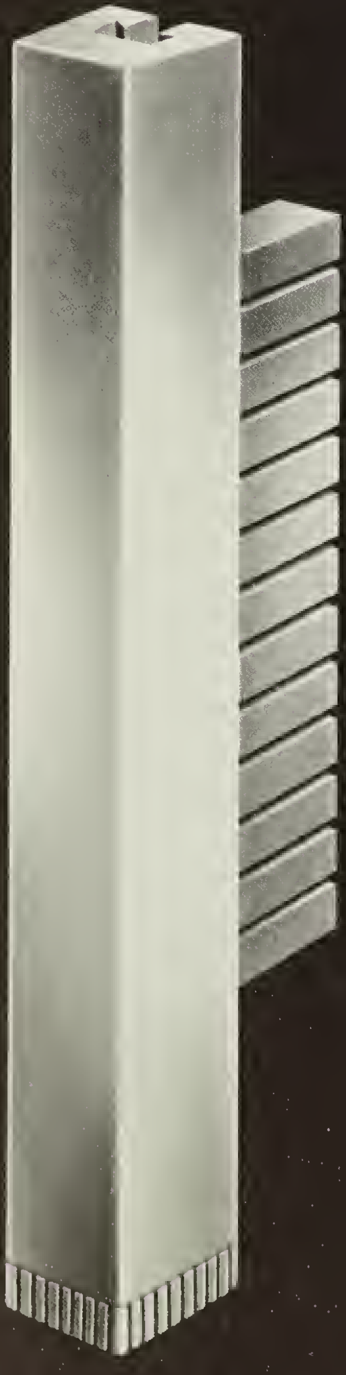



¾"
1¼
2"
3 13/16"
4"

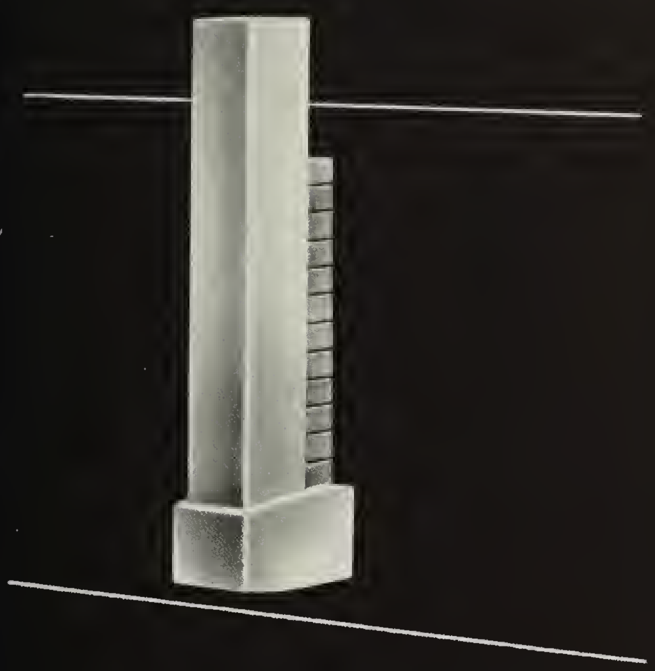


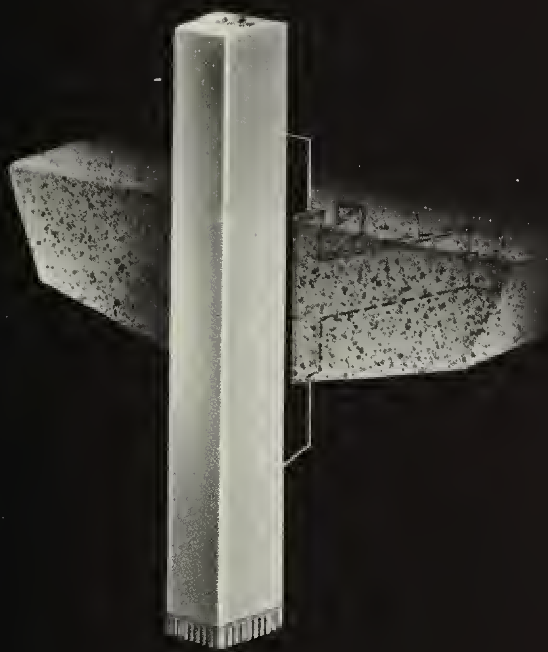


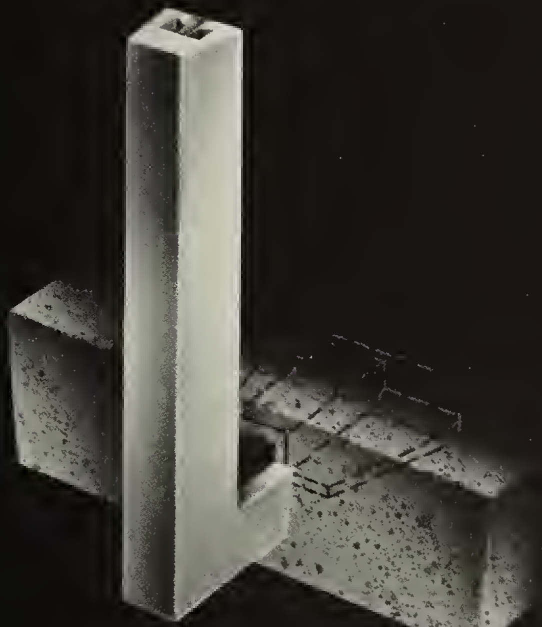




SUGGESTED APPLICATIONS







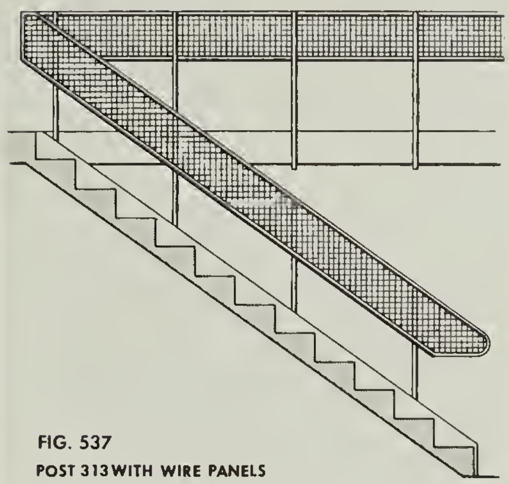


FIG. 537
POST 313 WITH WIRE PANELS

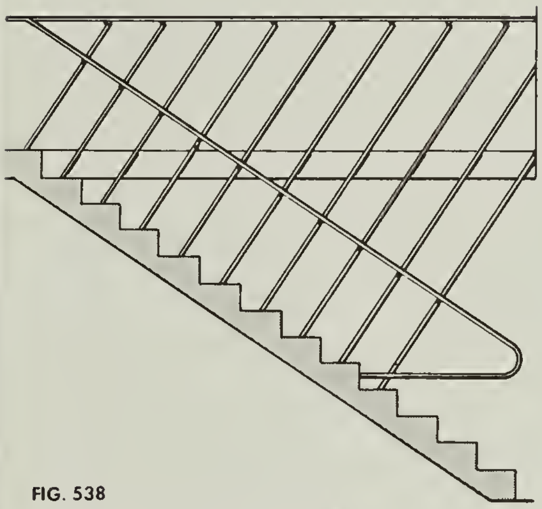


FIG. 538
POST 313 SET 90° TO SLOPE OF STAIRS

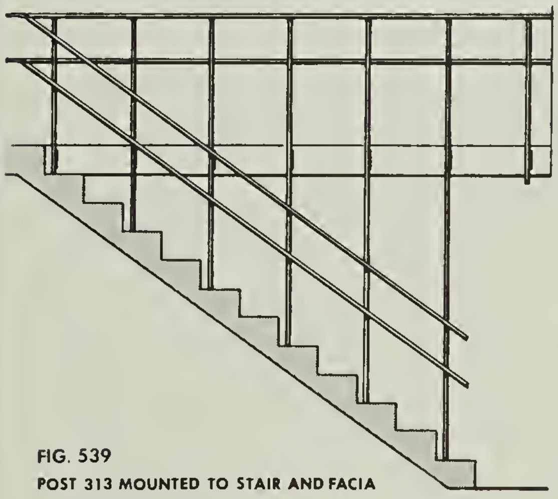


FIG. 539
POST 313 MOUNTED TO STAIR AND FACIA

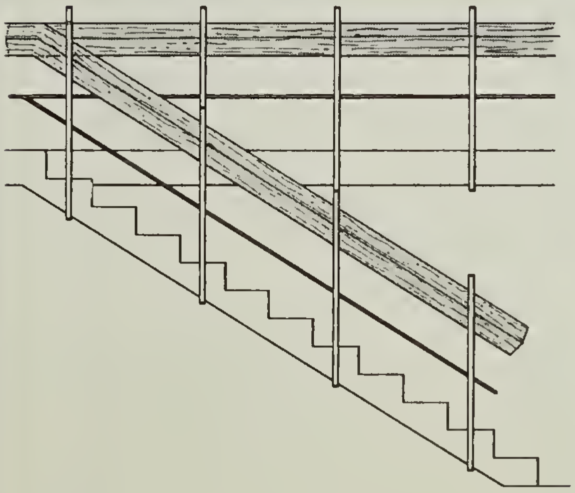
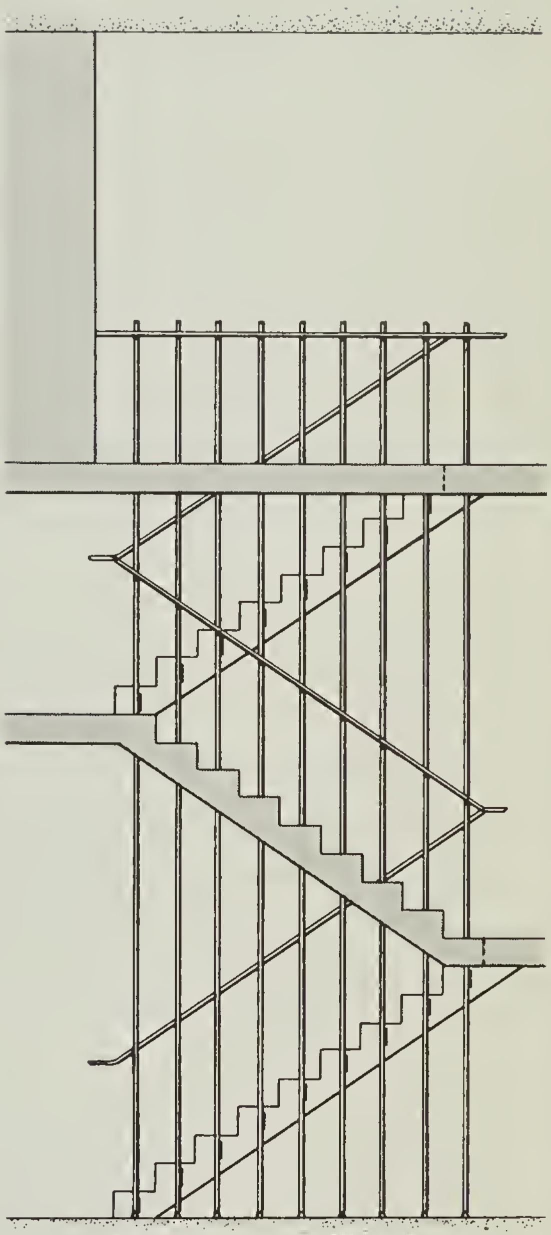


FIG. 740
POST 313 WITH WOOD-PLANK RAILS



POST 313 FLOOR TO FLOOR BALUSTRATION
FIG. 541

DETAILS

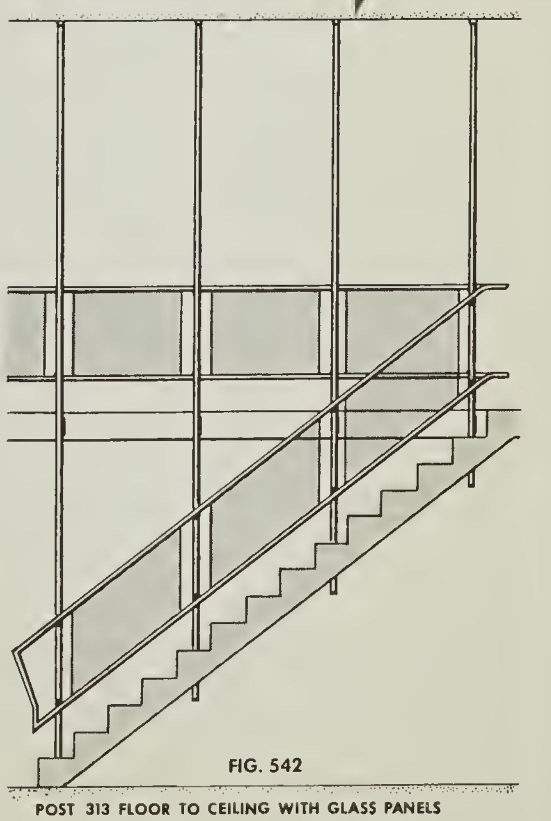
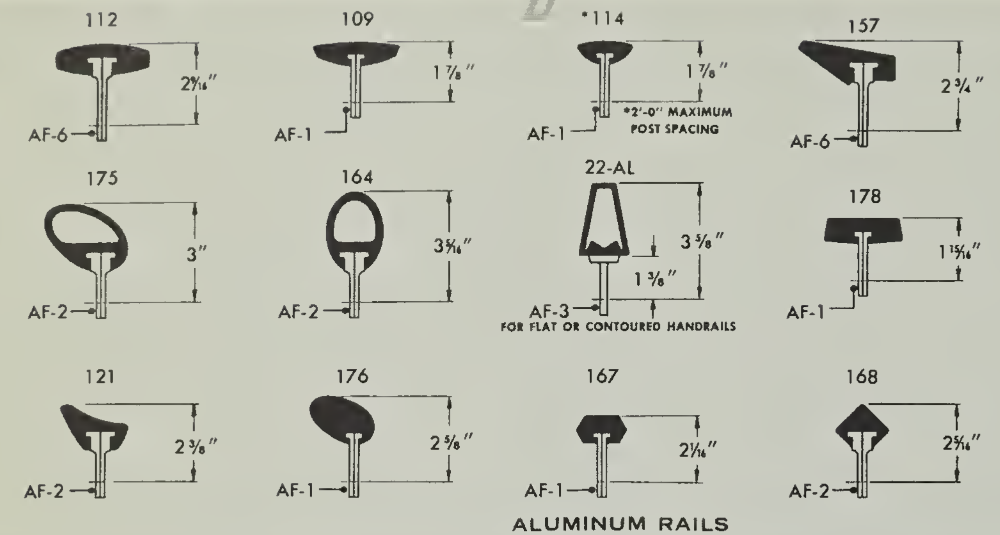
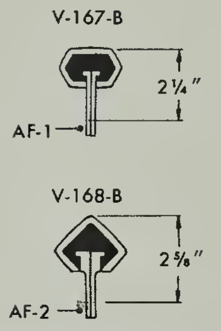


FIG. 542
POST 313 FLOOR TO CEILING WITH GLASS PANELS

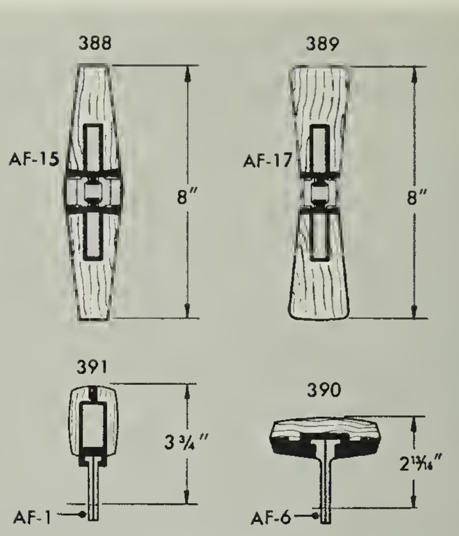

112
2 9/16"
AF-6
109
1 7/8"
AF-1
*114
1 7/8"
*2'-0" MAXIMUM POST SPACING
AF-1
157
2 3/4"
AF-6
177
2 1/16"
AF-2
175
3"
AF-2
164
3 5/16"
AF-2
22-AL
3 5/8"
1 3/8"
AF-3
FOR FLAT OR CONTOURED HANDRAILS
178
1 15/16"
AF-1
396
3 3/4"
AF-1
121
2 3/8"
AF-2
176
2 5/8"
AF-1
167
2 1/16"
AF-1
168
2 5/16"
AF-2
395
2 13/16"
AF-6

ALUMINUM RAILS

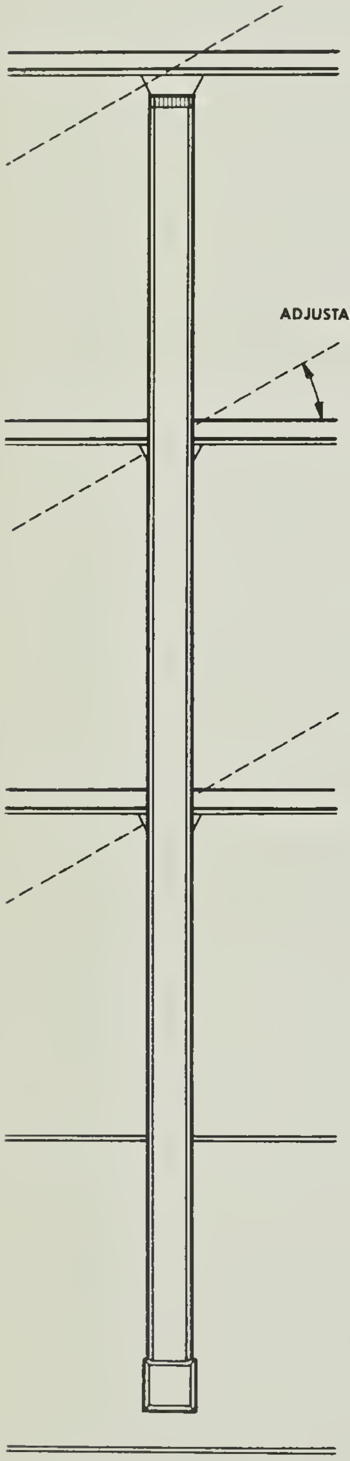
FULL SIZE SECTIONS
PAGES — 146-149


V-167-B
2 1/4"
AF-1
V-168-B
2 5/8"
AF-2

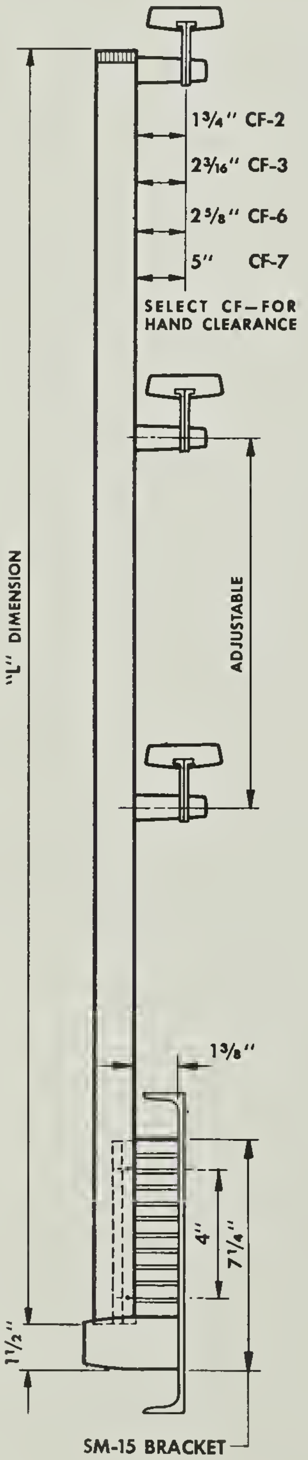
VINYL RAILS


388
AF-15
8"
389
AF-17
8"
391
3 3/4"
AF-1
390
2 13/16"
AF-6

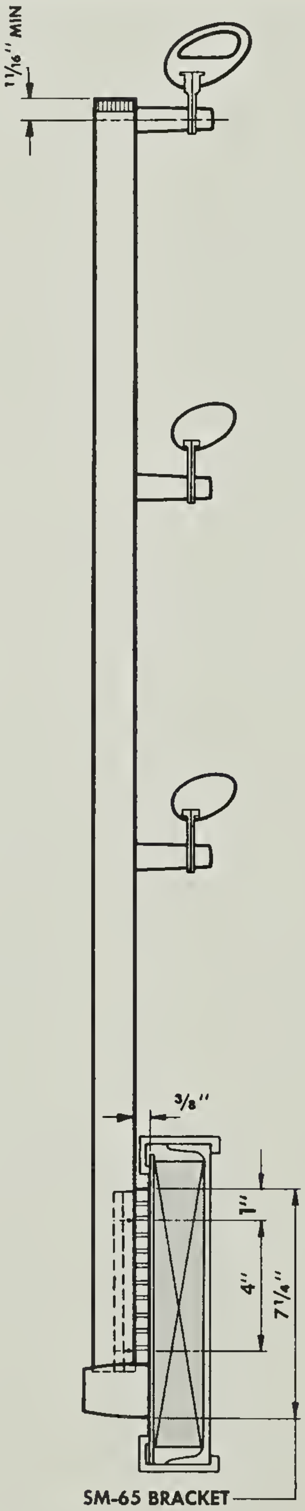
WOOD RAILS


ADJUSTABLE

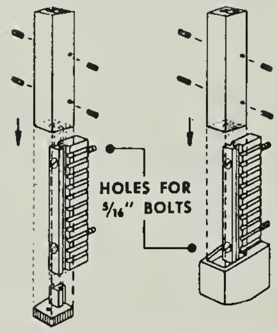
SIDE ELEVATION


1 3/4" CF-2
2 3/16" CF-3
2 5/8" CF-6
5" CF-7
SELECT CF—FOR HAND CLEARANCE
"L" DIMENSION
ADJUSTABLE
1 3/8"
4"
7 1/4"
1 1/2"

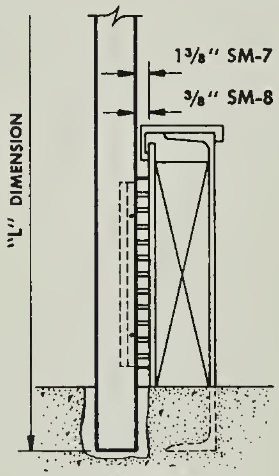
SM-15 BRACKET


1 1/16" MIN
3/8"
1"
4"
7 1/4"

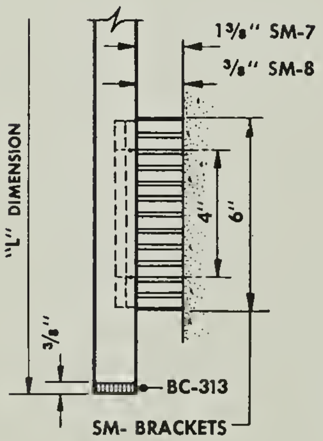
SM-65 BRACKET


HOLES FOR 5/16" BOLTS

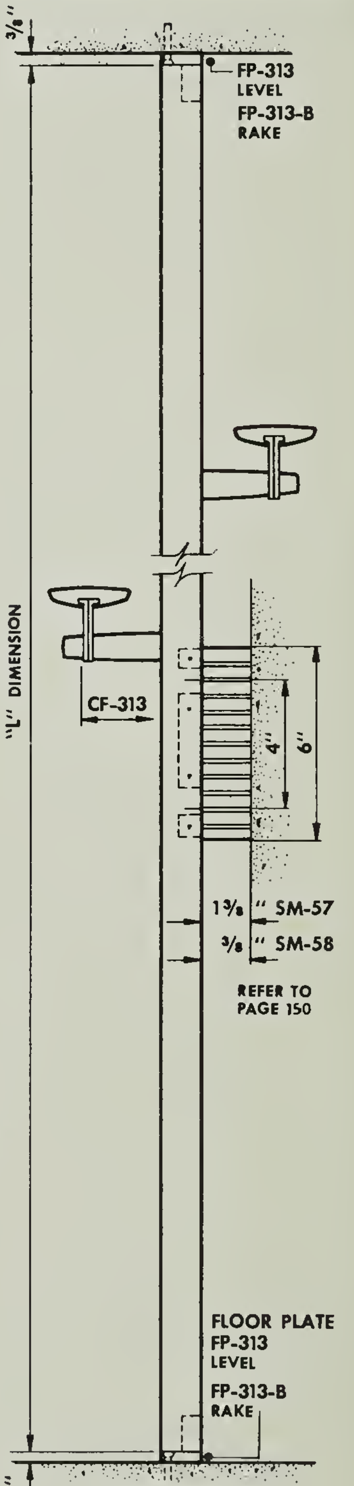
ASSEMBLY OF POST AND BRACKETS


1 3/8" SM-7
3/8" SM-8
"L" DIMENSION

STARTING POST

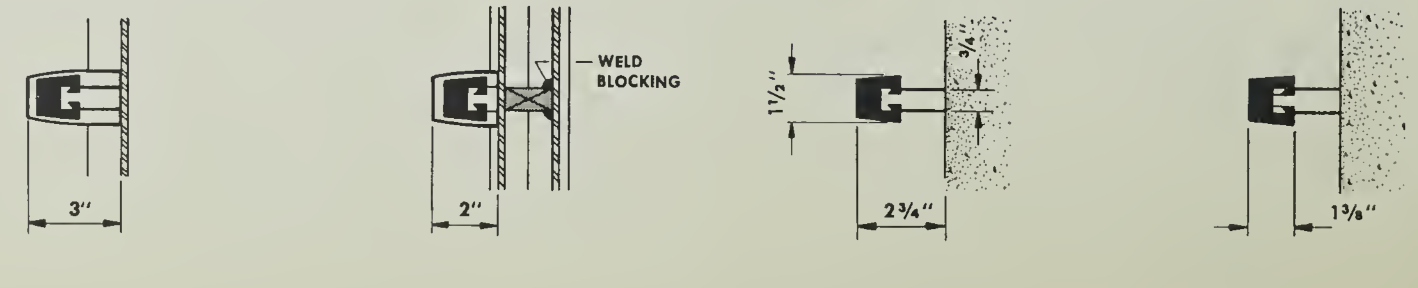

1 3/8" SM-7
3/8" SM-8
"L" DIMENSION
4"
6"
3/8"
BC-313

SM- BRACKETS

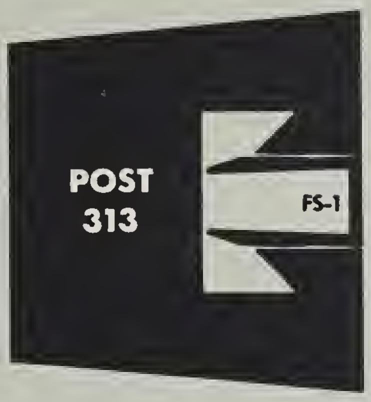

3/8"
FP-313 LEVEL
FP-313-B RAKE
"L" DIMENSION
CF-313
4"
6"
1 3/8" SM-57
3/8" SM-58
REFER TO PAGE 150
FLOOR PLATE
FP-313
LEVEL
FP-313-B
RAKE
3/8"

FLOOR TO CEILING

ALTERNATE MOUNTINGS
SCALE 1 1/2" = 1'-0"


3"
WELD
BLOCKING
2"
1 1/2"
3/4"
2 3/4"
1 3/8"

DELUXE-LINE


POST
313
FS-1

SECTION FULL SIZE

POST SPACING——NOT TO EXCEED 4'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 4'-0" FOR LEVEL RAILING EXCEPT WHEN USING NO. 114 HANDRAIL MAXIMUM POST SPACING 2'-0". REFER TO PAGE 150

STARTING POSTS——INCLUDING THOSE WITH SIDE MOUNTED BRACKETS, SHOULD EXTEND INTO FLOOR FOR ADDED RIGIDITY.

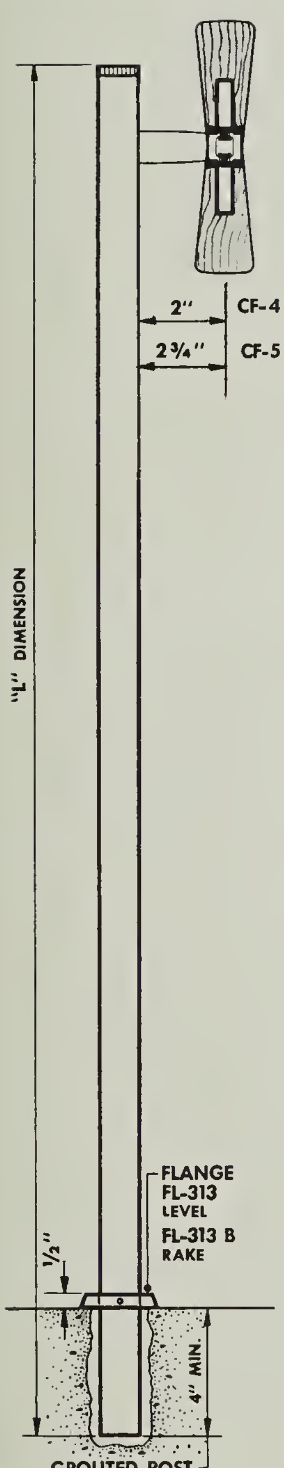
BOXED METAL STRINGERS——SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

CONCRETE STAIRS——USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE . . . ELIMINATES EXPANSION SHIELDS.

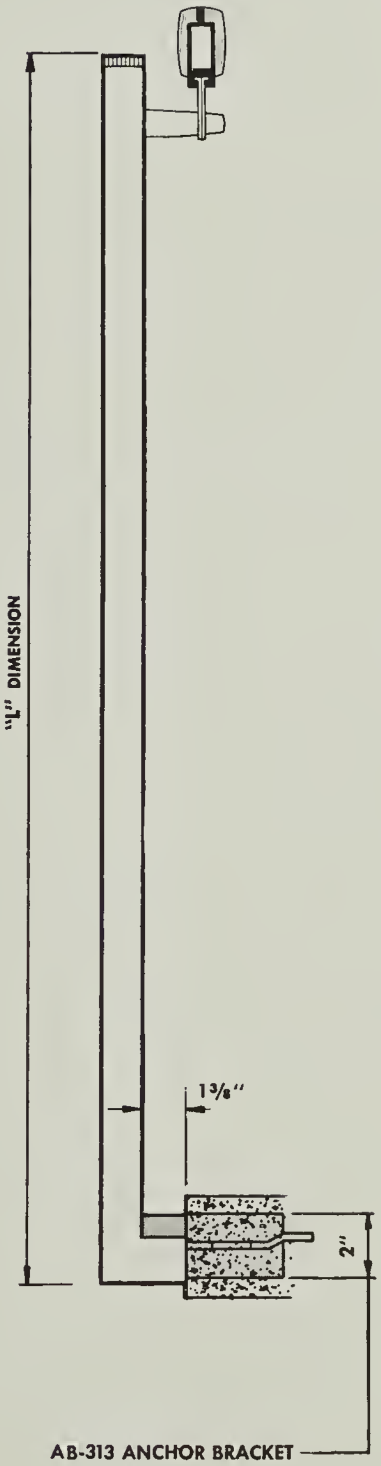
RIGIDITY——THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

FABRICATION——LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

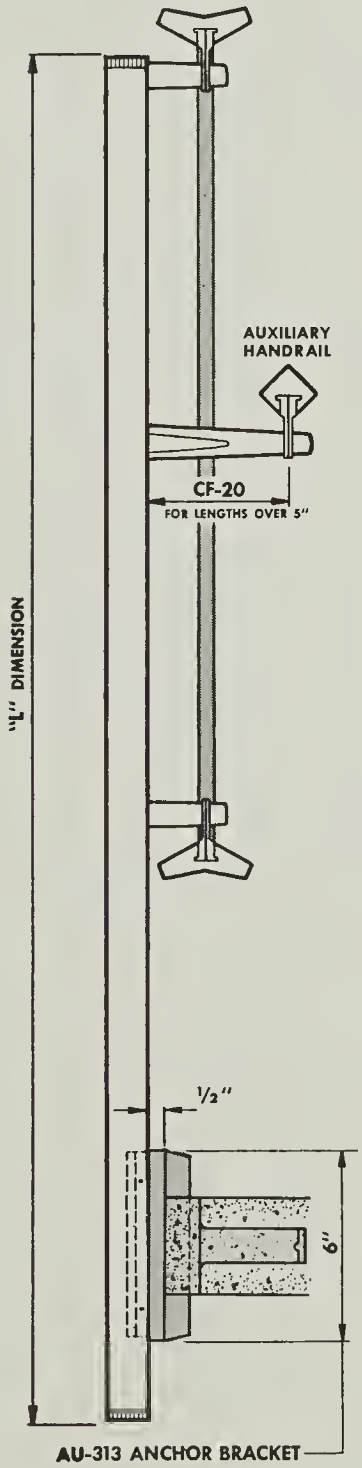
SERVICE TO ARCHITECT——OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.


2" CF-4
2 3/4" CF-5
"L" DIMENSION
FLANGE
FL-313
LEVEL
FL-313 B
RAKE
1/2"
4" MIN.

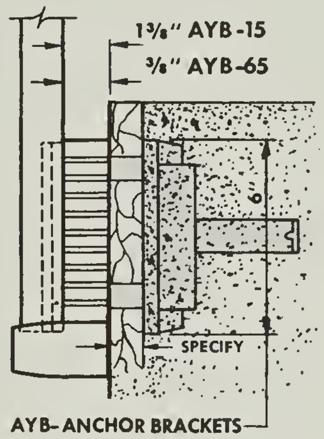
GROUTED POST


"L" DIMENSION
1 3/8"
2"

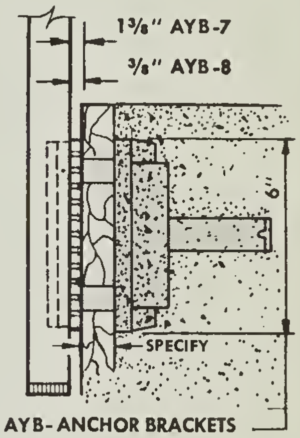
AB-313 ANCHOR BRACKET


AUXILIARY
HANDRAIL
CF-20
FOR LENGTHS OVER 5"
"L" DIMENSION
1/2"
6"

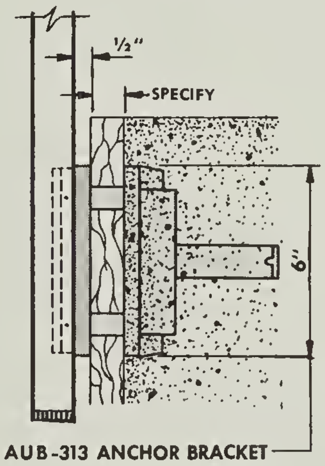
AU-313 ANCHOR BRACKET


1 3/8" AYB-15
3/8" AYB-65
6"
SPECIFY

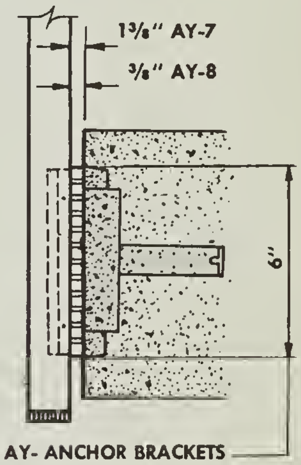
AYB- ANCHOR BRACKETS


1 3/8" AYB-7
3/8" AYB-8
6"
SPECIFY

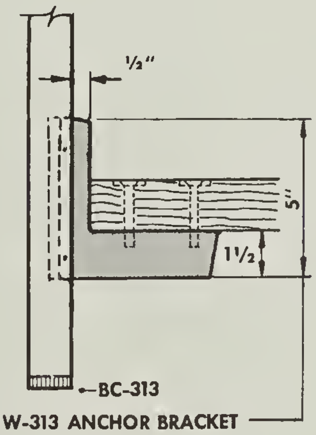
AYB- ANCHOR BRACKETS


1/2"
SPECIFY
6"

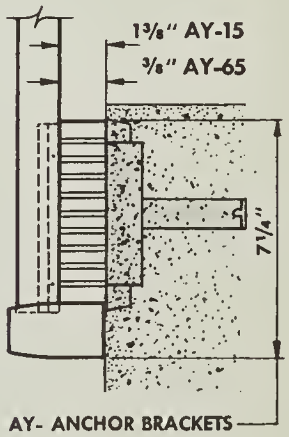
AUB-313 ANCHOR BRACKET


1 3/8" AY-7
3/8" AY-8
6"

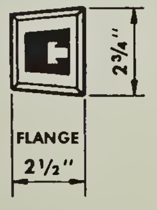
AY- ANCHOR BRACKETS

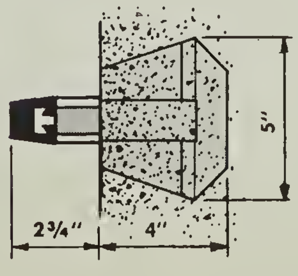

1/2"
5"
1 1/2"
BC-313

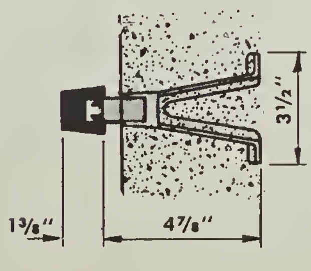
ABW-313 ANCHOR BRACKET

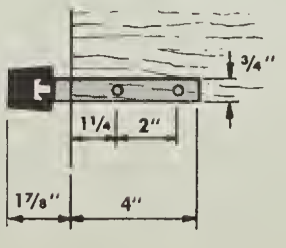

1 3/8" AY-15
3/8" AY-65
7 1/4"

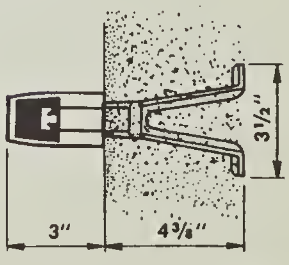
AY- ANCHOR BRACKETS

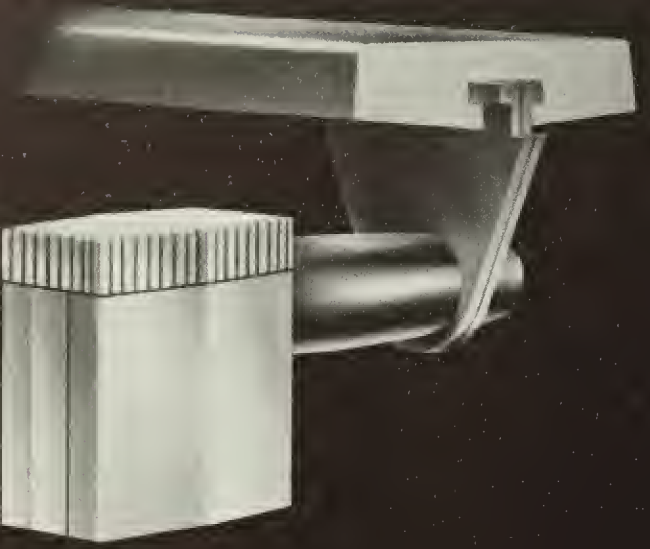

2 3/4"
FLANGE
2 1/2"

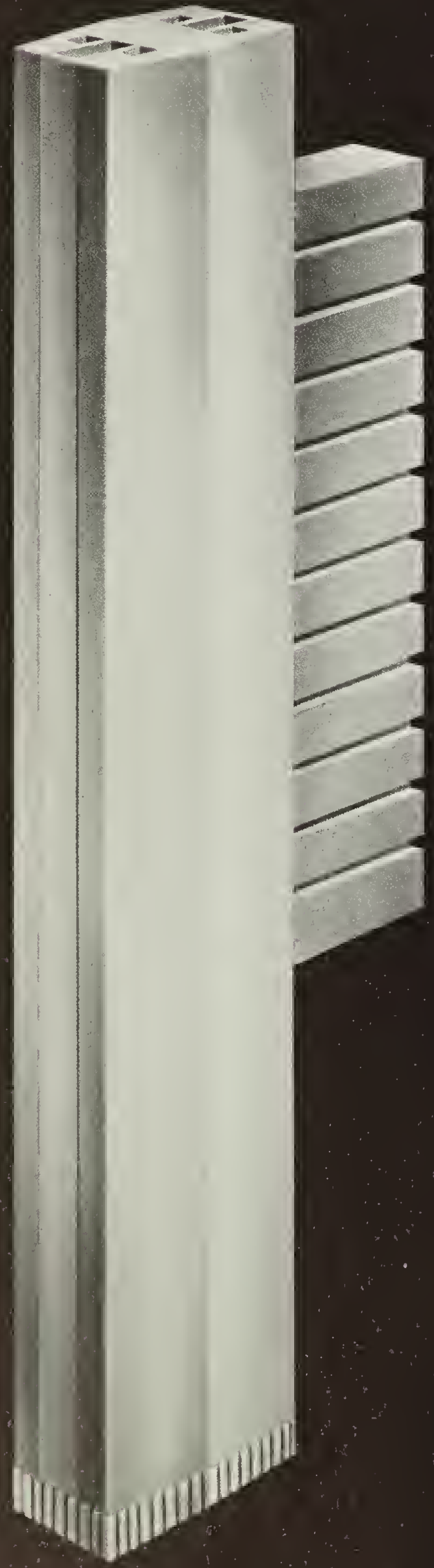


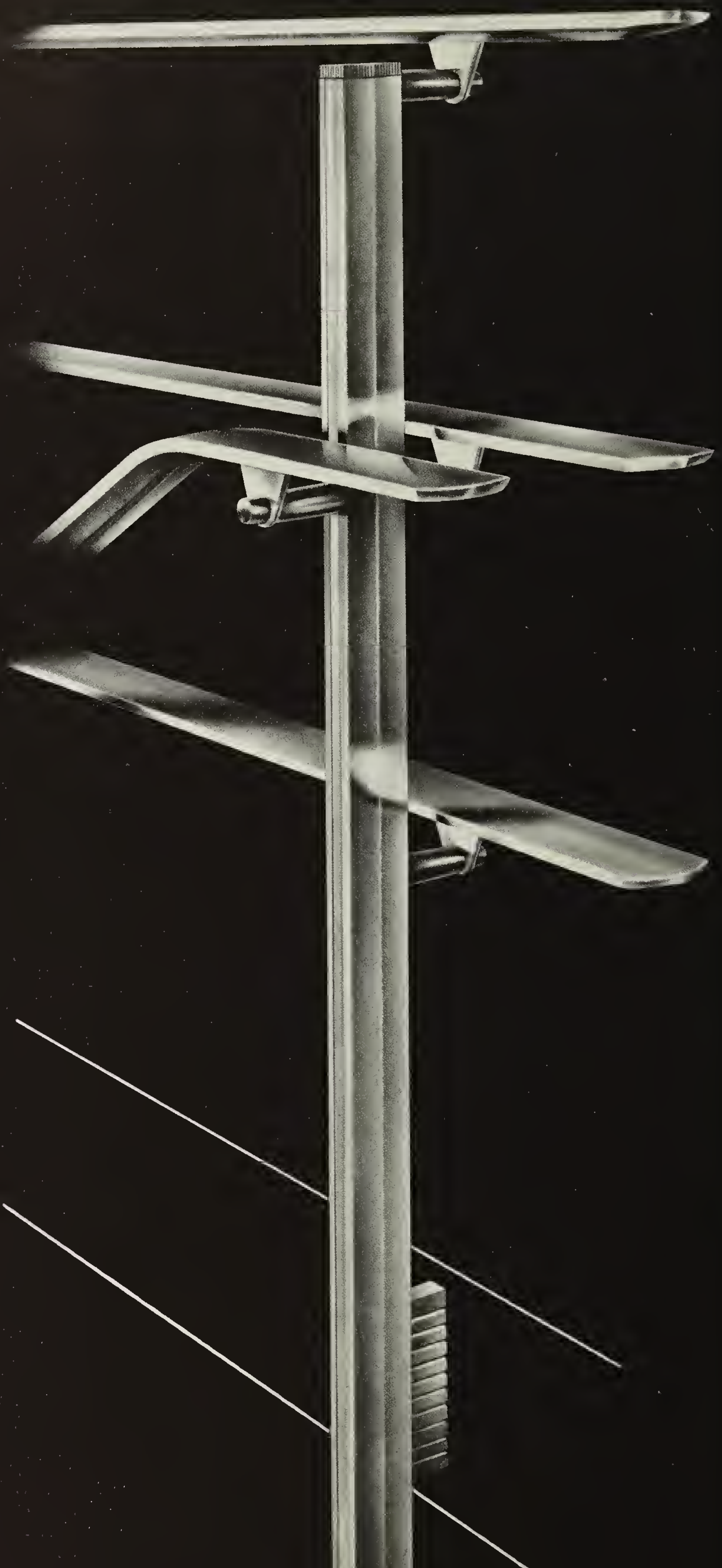



3/4"
1 1/4"
2"
1 7/8"
4"





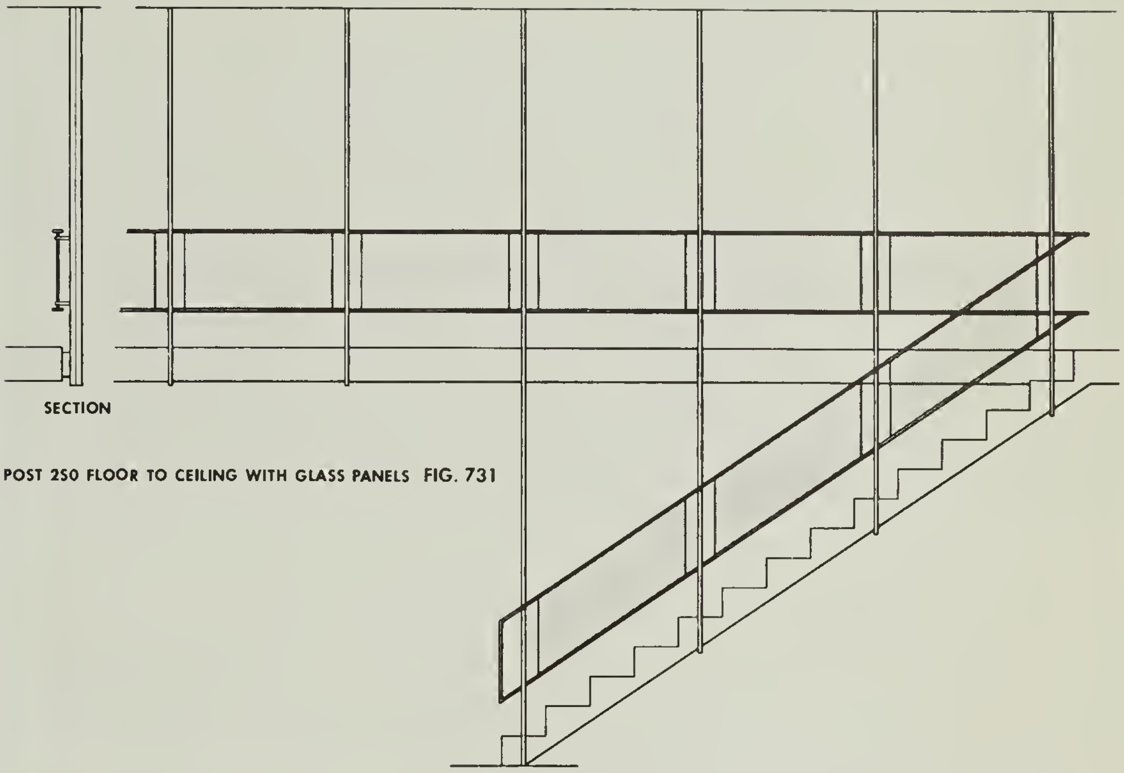




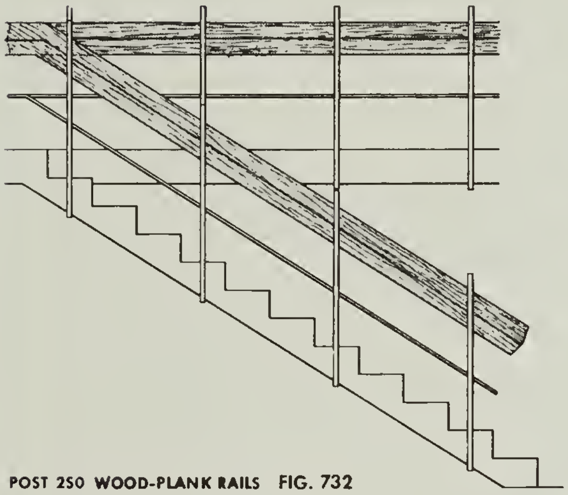
BLUMCRAFT'S ORIGINAL DESIGNS AND STRUCTURES ARE FULLY COVERED BY PATENTS AND PENDING PATENT APPLICATIONS IN THE UNITED STATES AND CANADA.

SUGGESTED APPLICATIONS

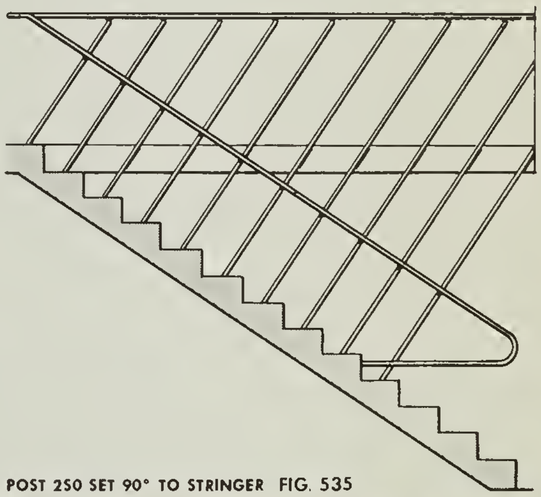
DELUXE-LINE



POST 250 FLOOR TO CEILING WITH GLASS PANELS FIG. 731



POST 250 WOOD-PLANK RAILS FIG. 732



POST 250 SET 90° TO STRINGER FIG. 535

DETAILS

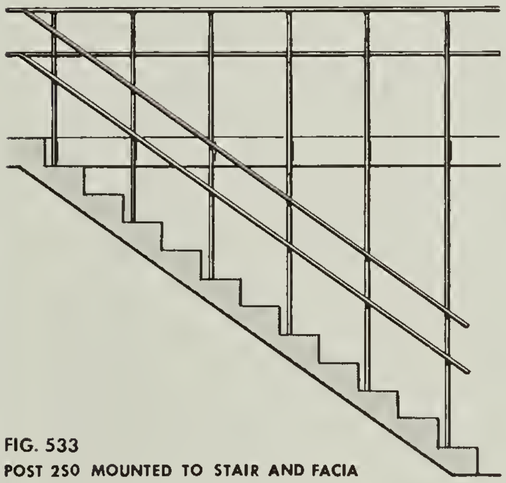


FIG. 533
POST 250 MOUNTED TO STAIR AND FACIA

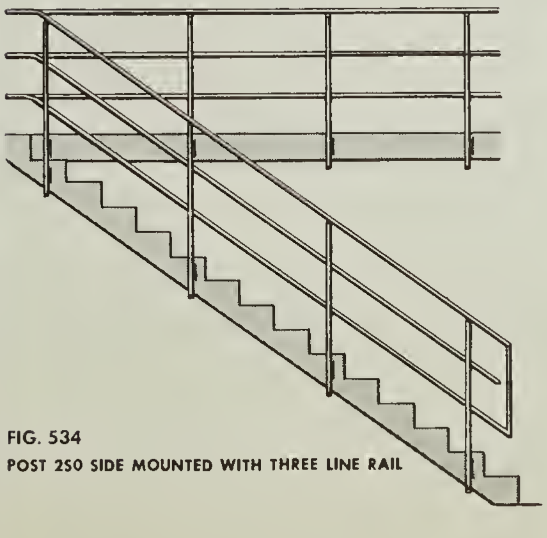


FIG. 534
POST 250 SIDE MOUNTED WITH THREE LINE RAIL

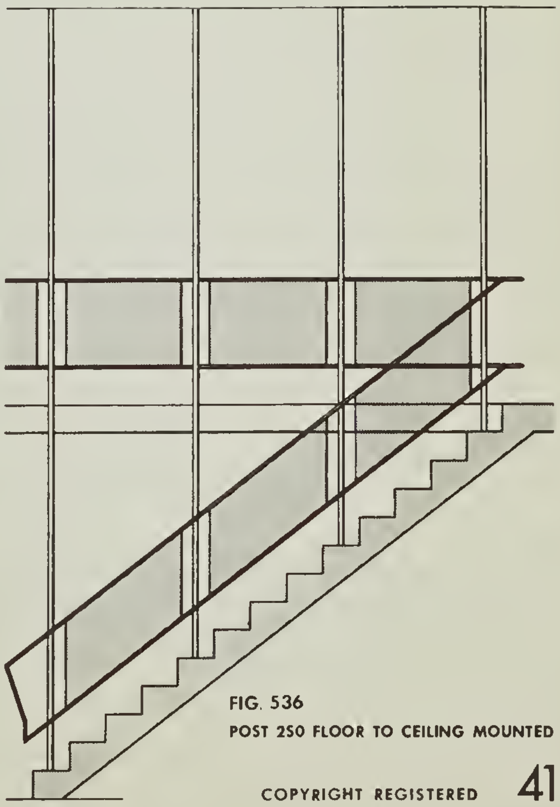
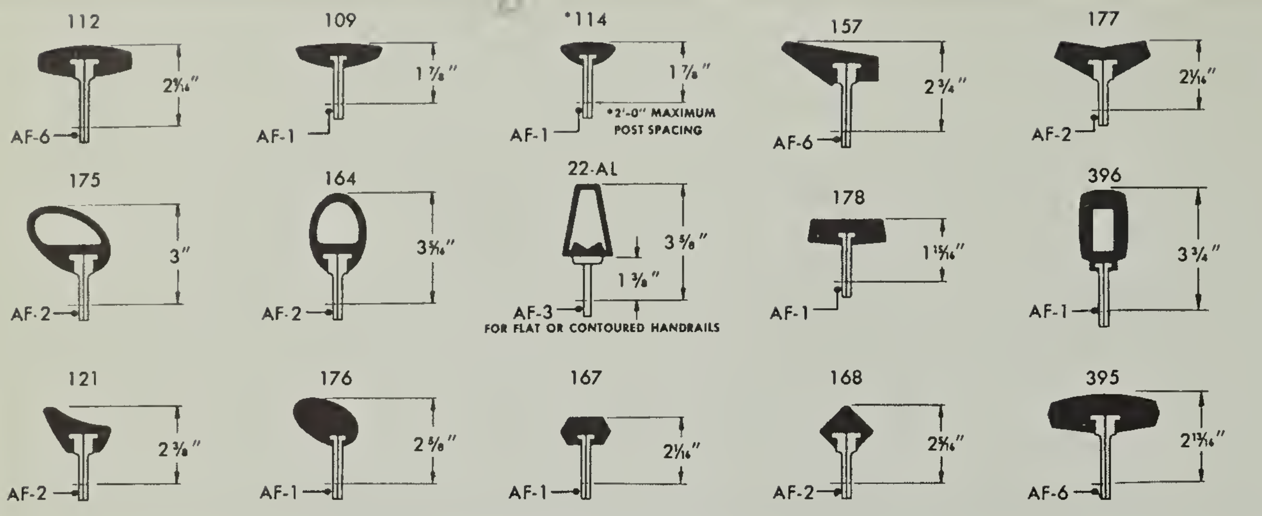
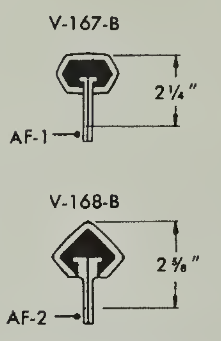


FIG. 536
POST 250 FLOOR TO CEILING MOUNTED

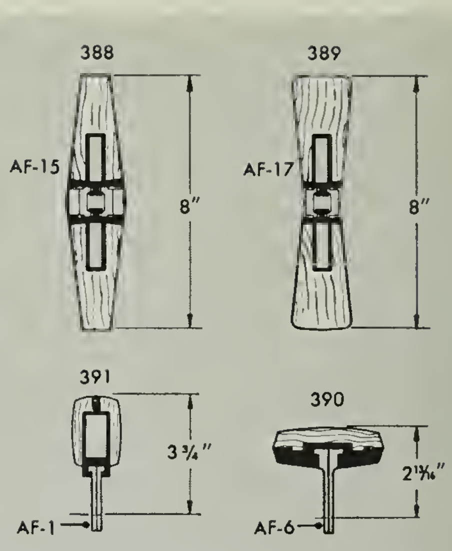

112
2 9/16"
AF-6
109
1 7/8"
AF-1
*114
1 7/8"
*2'-0" MAXIMUM POST SPACING
AF-1
157
2 3/4"
AF-6
177
2 1/16"
AF-2
175
3"
AF-2
164
3 5/16"
AF-2
22-AL
3 5/8"
1 3/8"
AF-3
FOR FLAT OR CONTOURED HANDRAILS
178
1 15/16"
AF-1
396
3 3/4"
AF-1
121
2 3/8"
AF-2
176
2 5/8"
AF-1
167
2 1/16"
AF-1
168
2 5/16"
AF-2
395
2 13/16"
AF-6

ALUMINUM RAILS

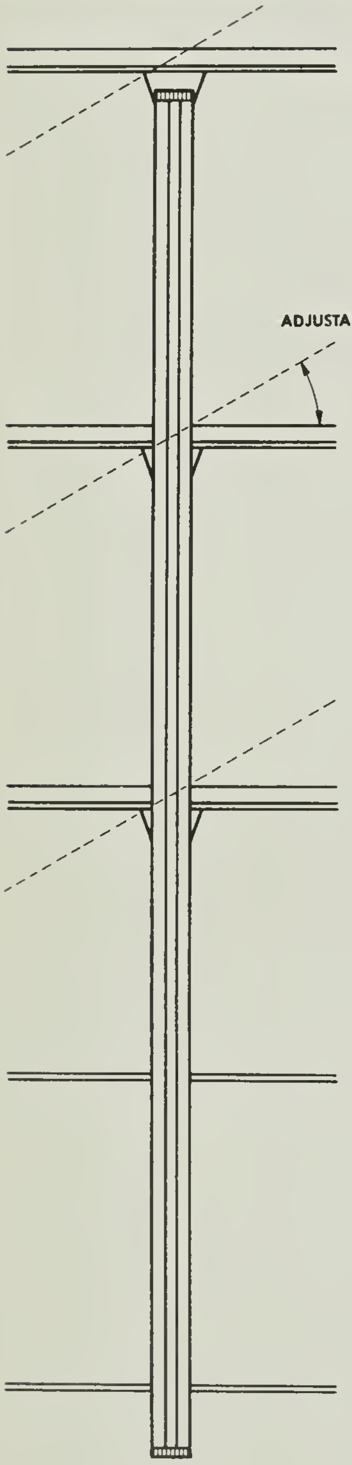
FULL SIZE SECTIONS
PAGES — 146-149


V-167-B
2 1/4"
AF-1
V-168-B
2 5/8"
AF-2

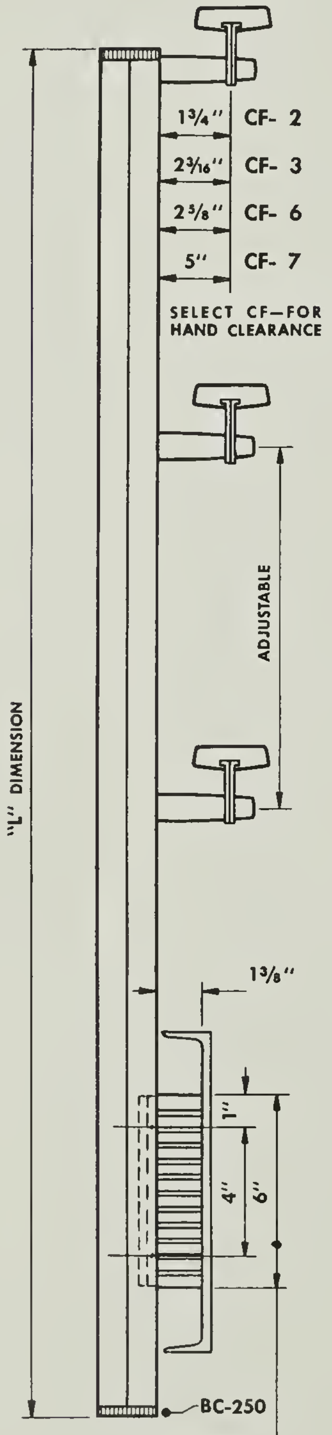
VINYL RAILS


388
AF-15
8"
389
AF-17
8"
391
3 3/4"
AF-1
390
2 13/16"
AF-6

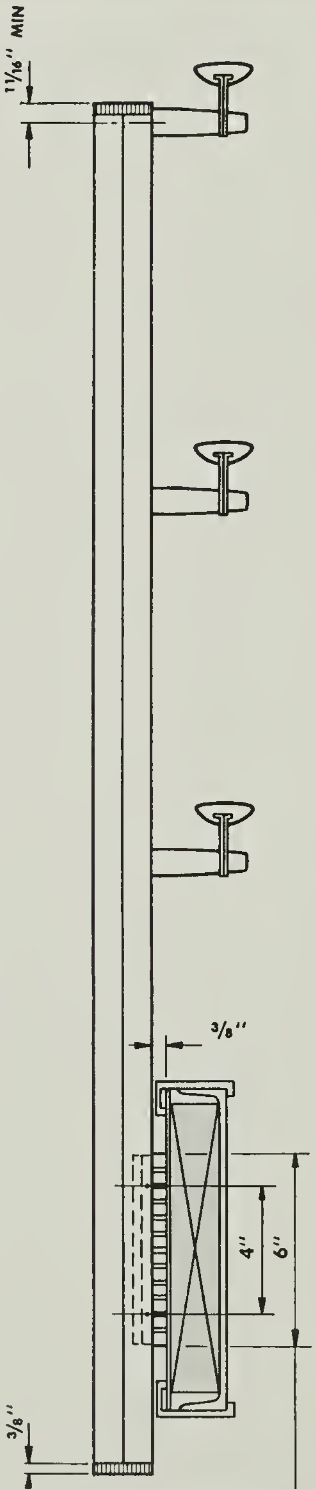
WOOD RAILS


ADJUSTABLE

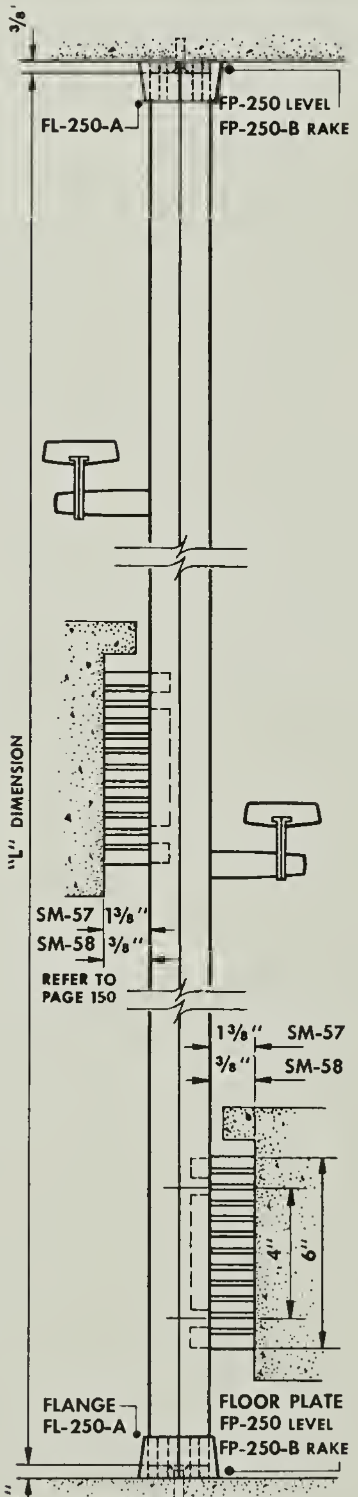
SIDE ELEVATION


1 3/4" CF- 2
2 3/16" CF- 3
2 5/8" CF- 6
5" CF- 7
SELECT CF—FOR HAND CLEARANCE
ADJUSTABLE
"L" DIMENSION
1 3/8"
1"
4"
6"
BC-250

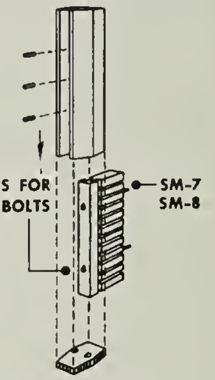
SM-7 BRACKET


1 1/16" MIN
3/8"
4"
6"
3/8"

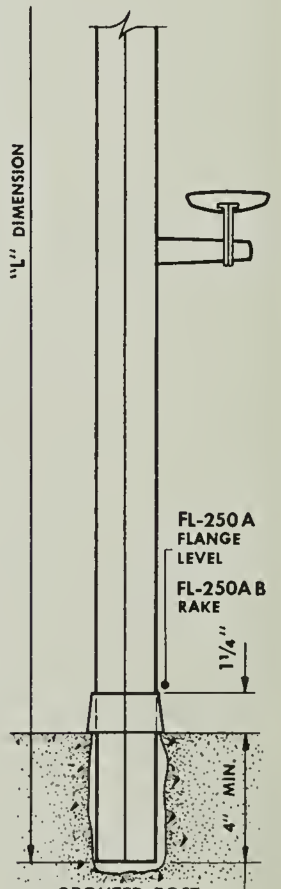
SM-8 BRACKET


3/8"
FL-250-A
FP-250 LEVEL
FP-250-B RAKE
"L" DIMENSION
SM-57 1 3/8"
SM-58 3/8"
REFER TO PAGE 150
1 3/8" SM-57
3/8" SM-58
4"
6"
FLANGE FL-250-A
FLOOR PLATE
FP-250 LEVEL
FP-250-B RAKE
3/8"

FLOOR TO CEILING

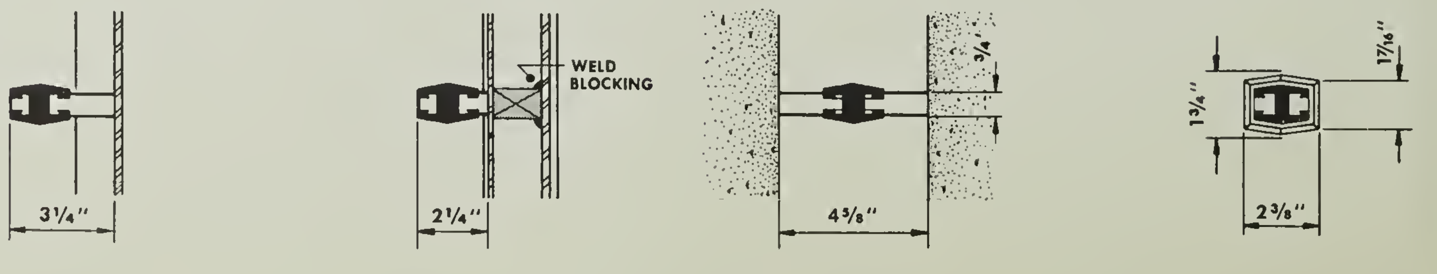

HOLES FOR 5/16" BOLTS
SM-7
SM-8

ASSEMBLY OF POST AND BRACKETS

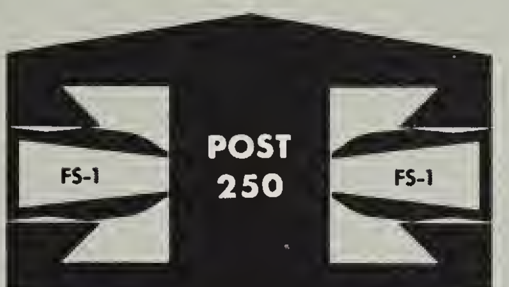

"L" DIMENSION
FL-250 A FLANGE LEVEL
FL-250 A B RAKE
1 1/4"
4" MIN.

GROUTED POST

ALTERNATE MOUNTINGS
SCALE 1 1/2" = 1'-0"


3 1/4"
WELD BLOCKING
2 1/4"
3/4"
4 5/8"
1 7/16"
1 3/4"
2 3/8"

DELUXE-LINE


FS-1
POST 250
FS-1

SECTION FULL SIZE

POST SPACING—NOT TO EXCEED 4'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 4'-0" FOR LEVEL RAILING EXCEPT WHEN USING NO. 114 HANDRAIL MAXIMUM POST SPACING 2'-0". REFER TO PAGE 150

STARTING POSTS—INCLUDING THOSE WITH SIDE MOUNTED BRACKETS, SHOULD EXTEND INTO FLOOR FOR ADDED RIGIDITY.

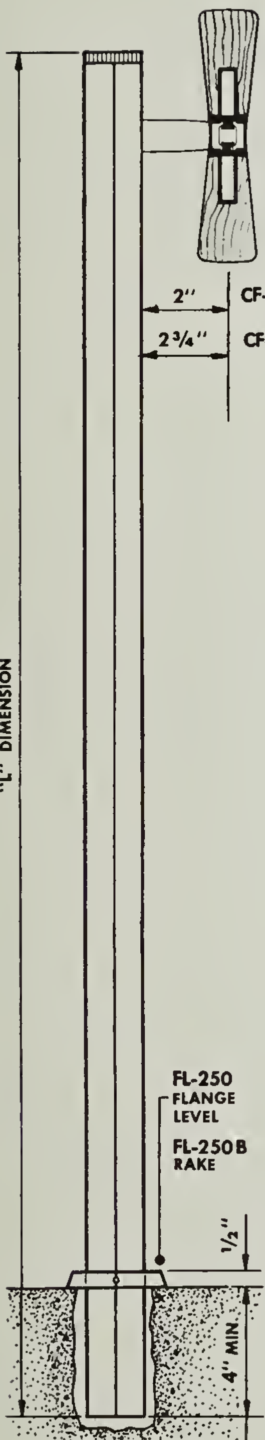
BOXED METAL STRINGERS—SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

CONCRETE STAIRS—USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE . . . ELIMINATES EXPANSION SHIELDS.

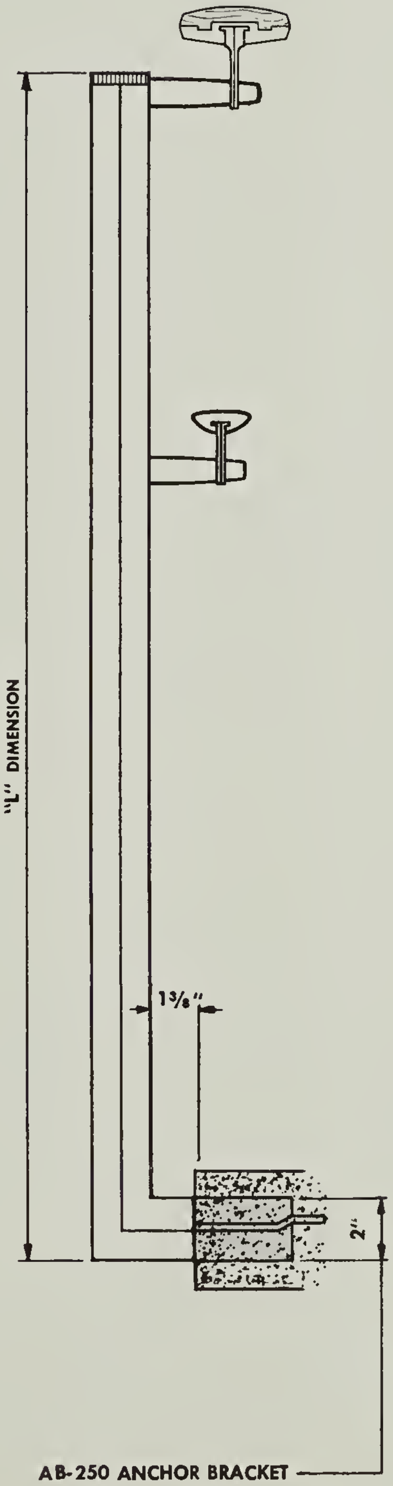
RIGIDITY—THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

FABRICATION—LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

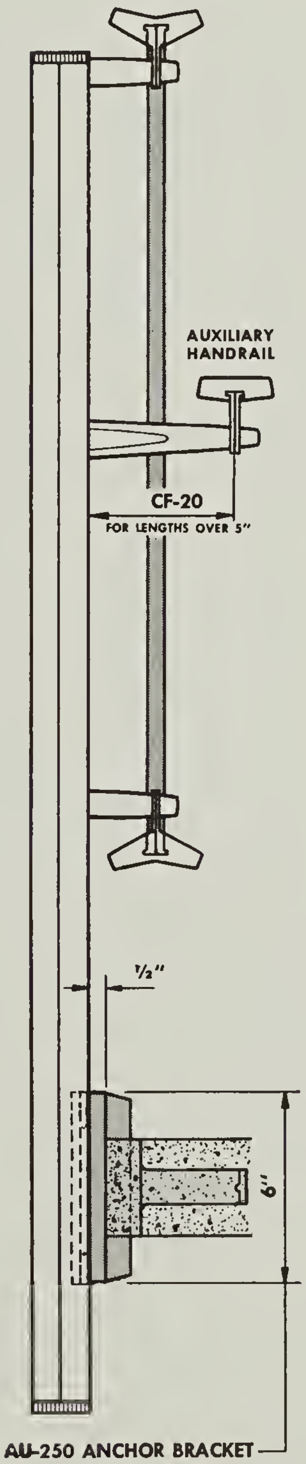
SERVICE TO ARCHITECT—OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT


2"
CF-4
2 3/4"
CF-5
"L" DIMENSION
FL-250
FLANGE
LEVEL
FL-250B
RAKE
1/2"
4" MIN.

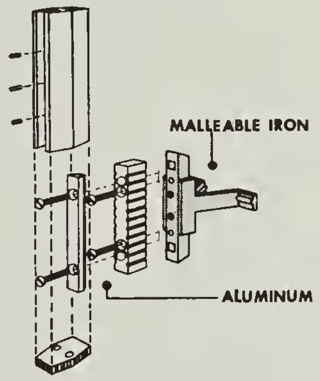
GROUTED POST


"L" DIMENSION
1 3/8"
2"

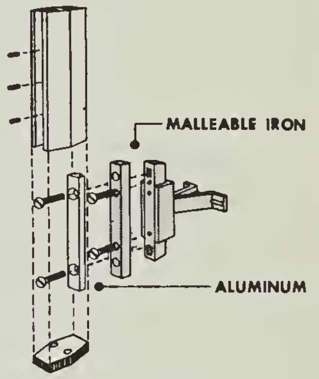
AB-250 ANCHOR BRACKET


AUXILIARY
HANDRAIL
CF-20
FOR LENGTHS OVER 5"
1/2"
6"

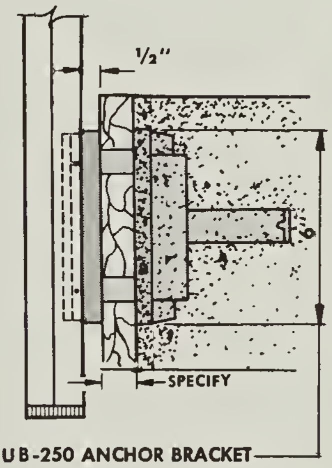
AU-250 ANCHOR BRACKET


MALLEABLE IRON
ALUMINUM

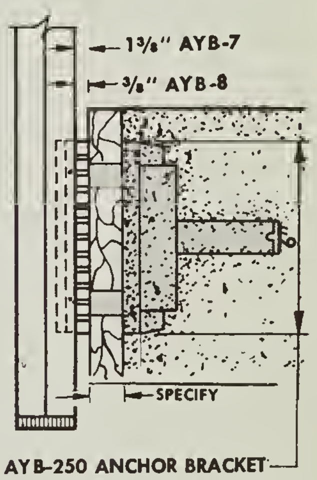
ASSEMBLY OF AY-ANCHOR BRACKET


MALLEABLE IRON
ALUMINUM

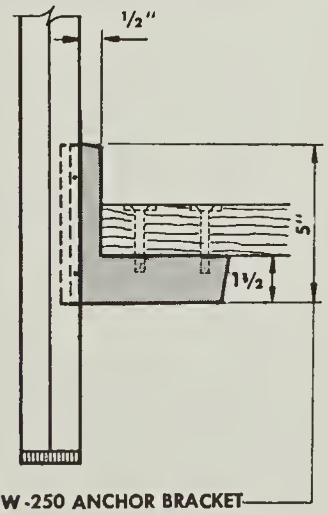
ASSEMBLY OF AU-ANCHOR BRACKET


1/2"
6"
SPECIFY

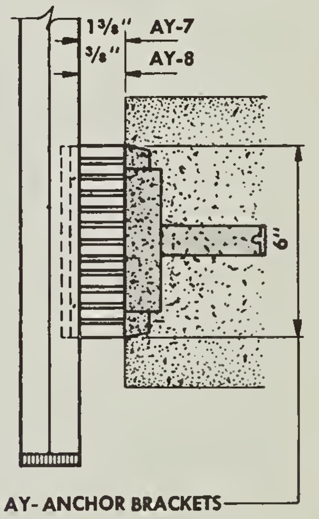
AUB-250 ANCHOR BRACKET


1 3/8" AYB-7
3/8" AYB-8
6"
SPECIFY

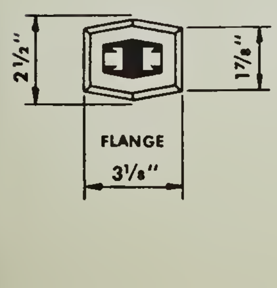
AYB-250 ANCHOR BRACKET

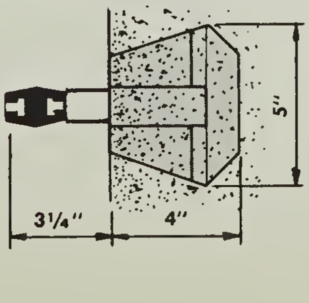


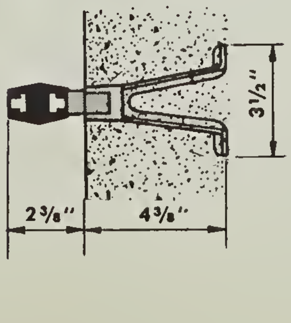
ABW-250 ANCHOR BRACKET

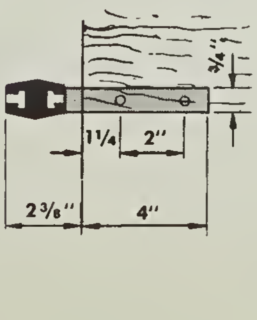

1 3/8" AY-7
3/8" AY-8
6"

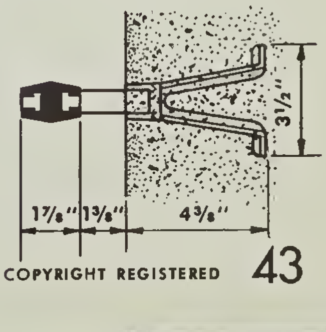
AY-ANCHOR BRACKETS

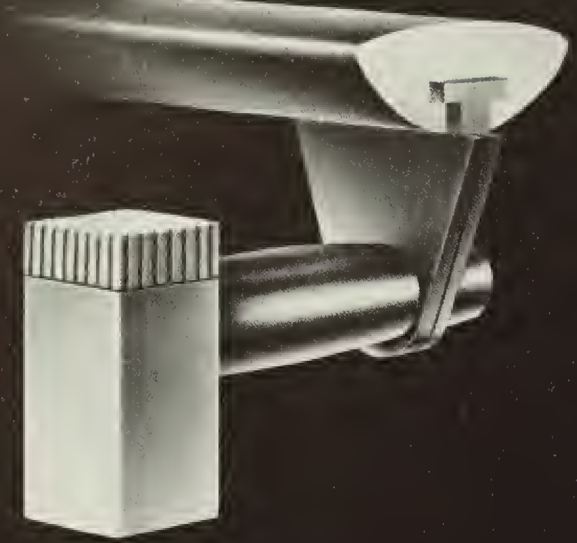

2 1/2"
1 7/8"
FLANGE
3 1/8"

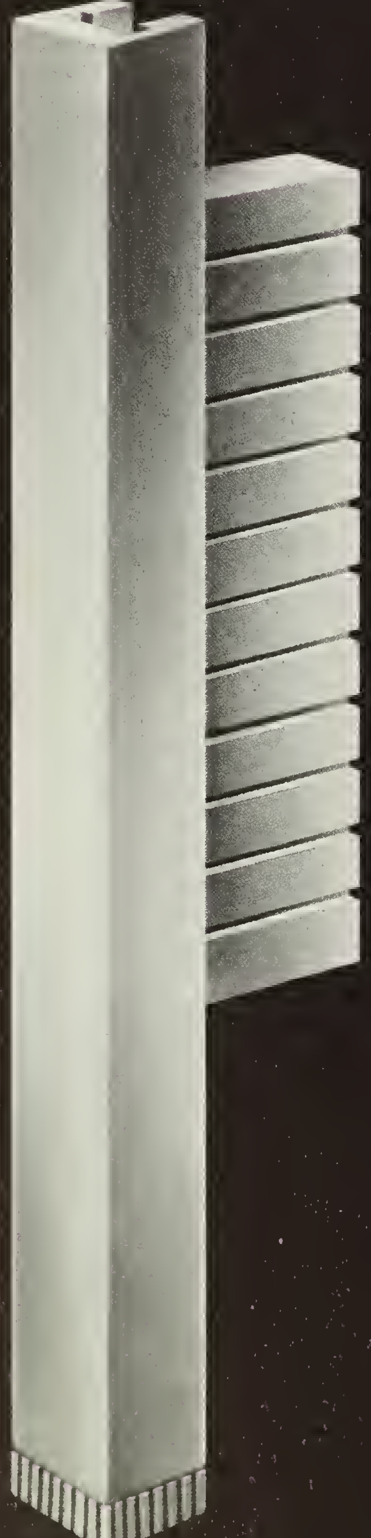


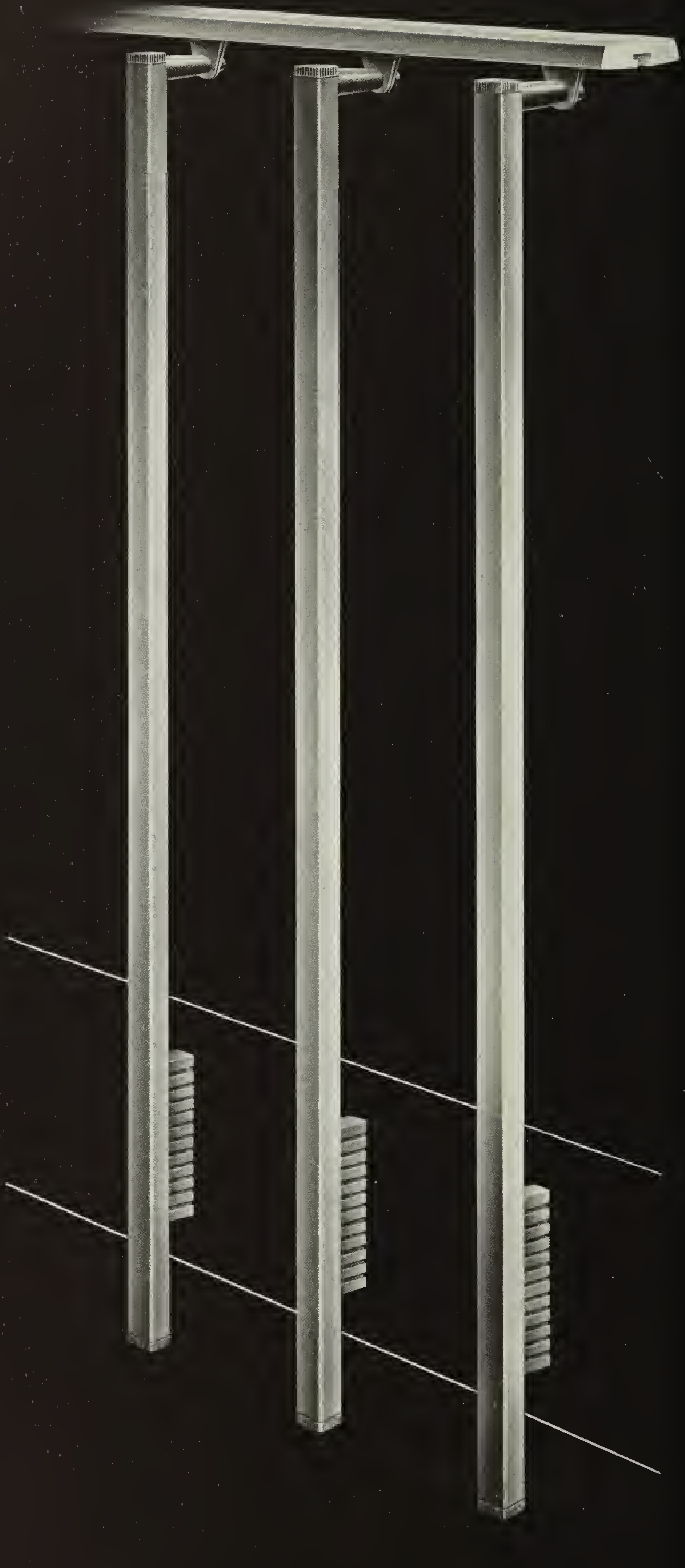



3/4"
1 1/4
2"
2 3/8"
4"

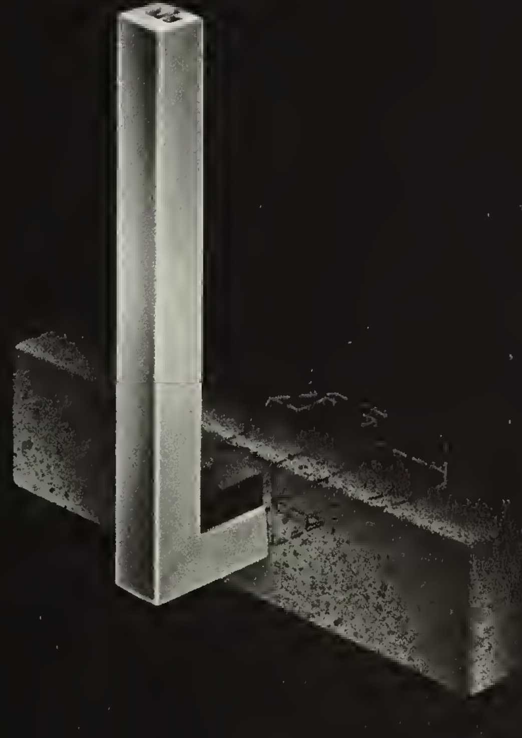

3 1/2"
1 7/8"
1 3/8"
4 3/8"







MAXIMUM BALUSTER SPACING 1'-0''



SUGGESTED APPLICATIONS

DELUXE-LINE

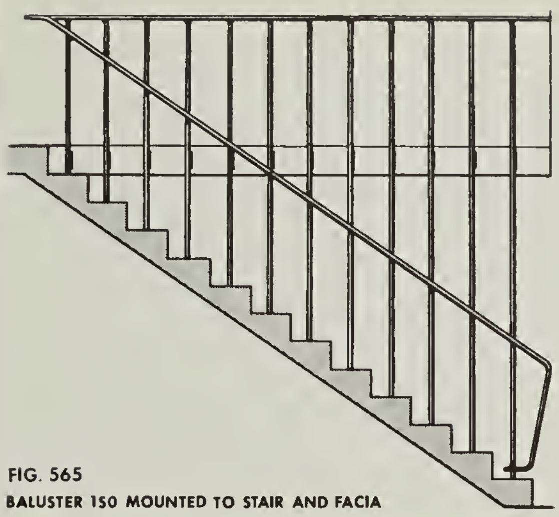


FIG. 565
BALUSTER 150 MOUNTED TO STAIR AND FACIA

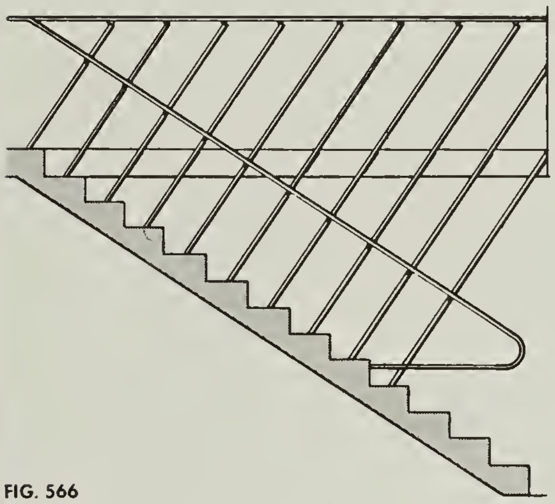


FIG. 566
BALUSTER 150 SET 90° TO SLOPE OF STAIR

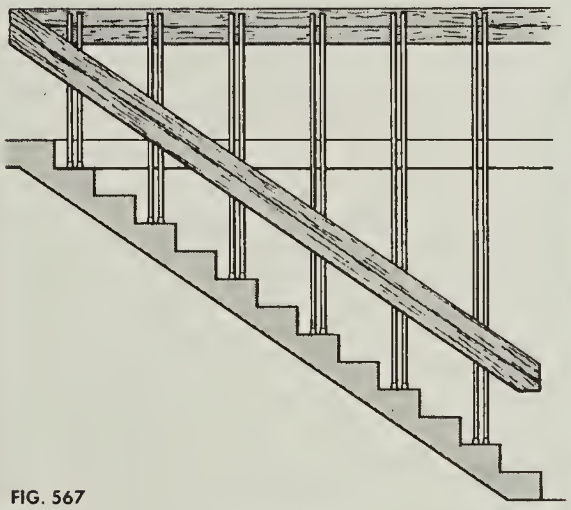


FIG. 567
BALUSTER 150 WITH WOOD-PLANK RAILS

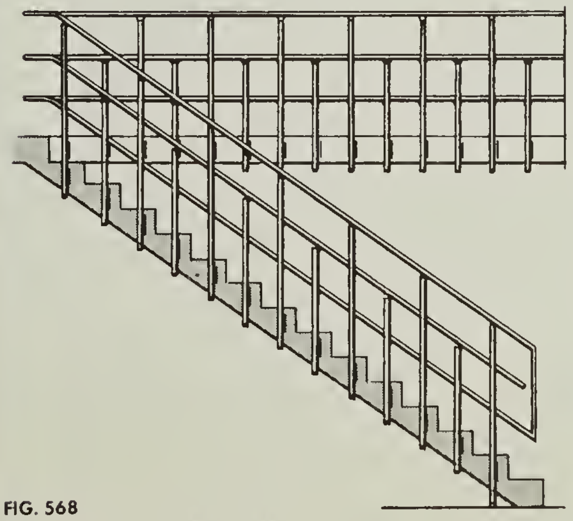


FIG. 568
BALUSTER 150 WITH THREE LINE RAIL

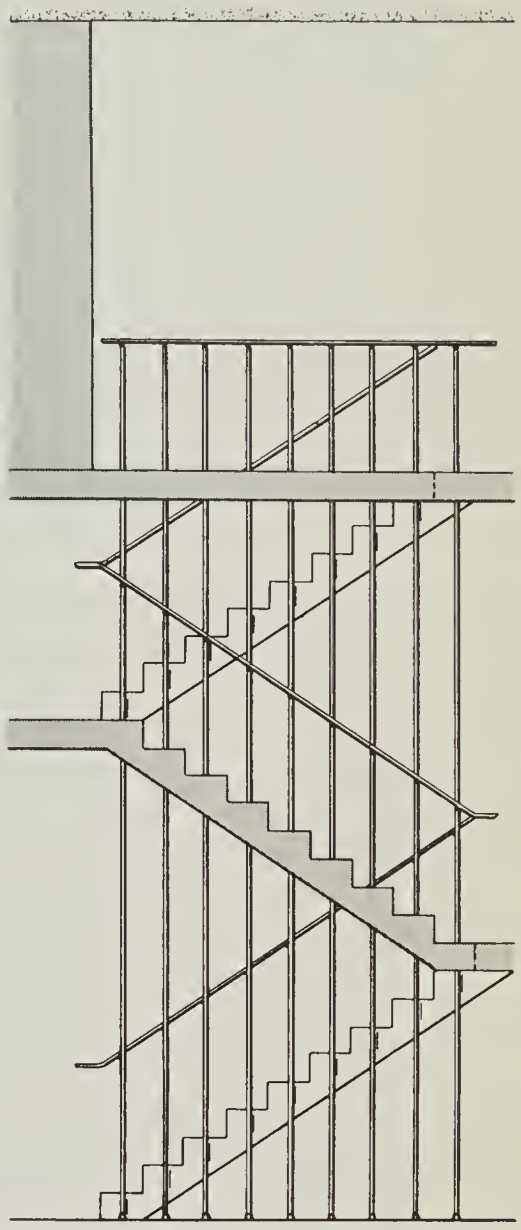


FIG. 569 BALUSTER 150 FLOOR TO FLOOR BALUSTRATION

DETAILS

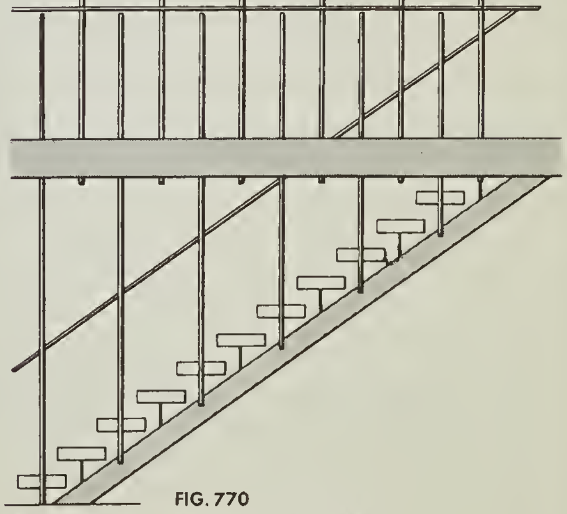
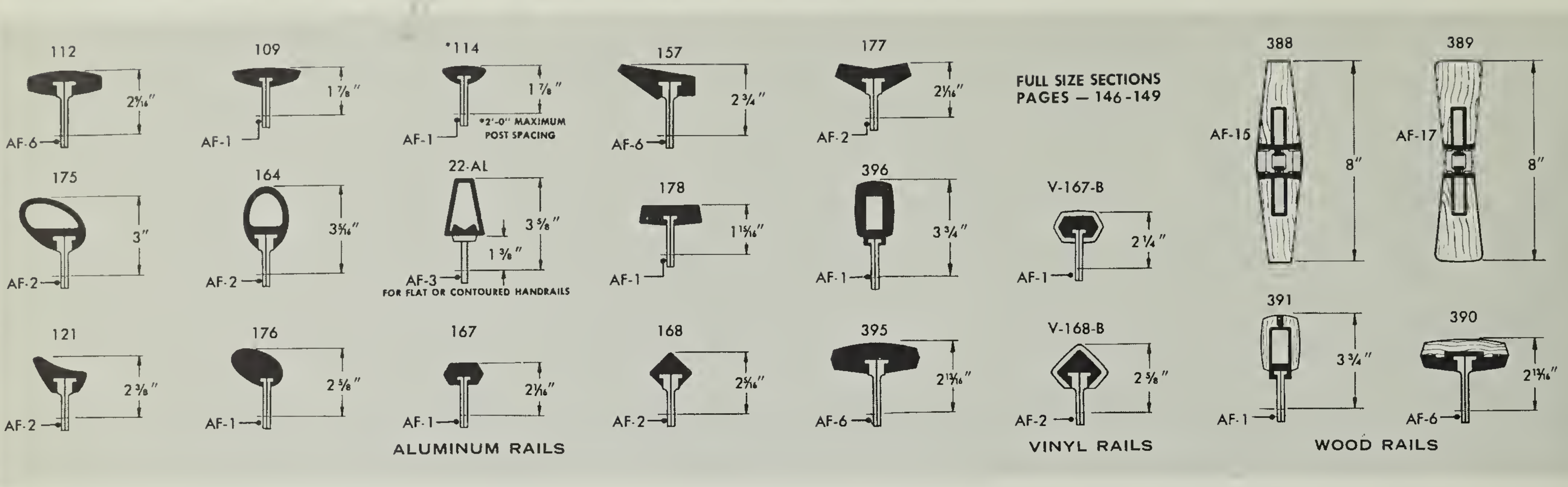
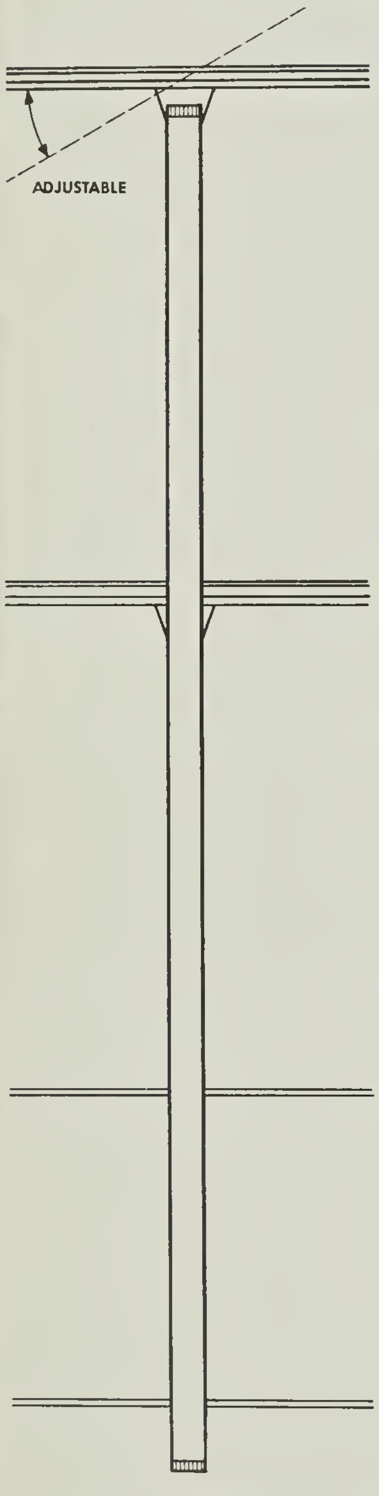
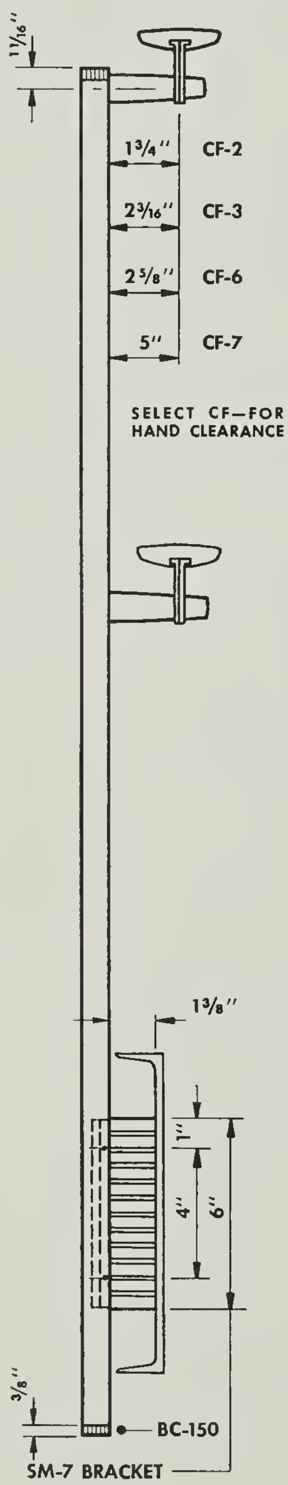


FIG. 770
BALUSTER 150 FLOOR TO CEILING BALUSTRATION

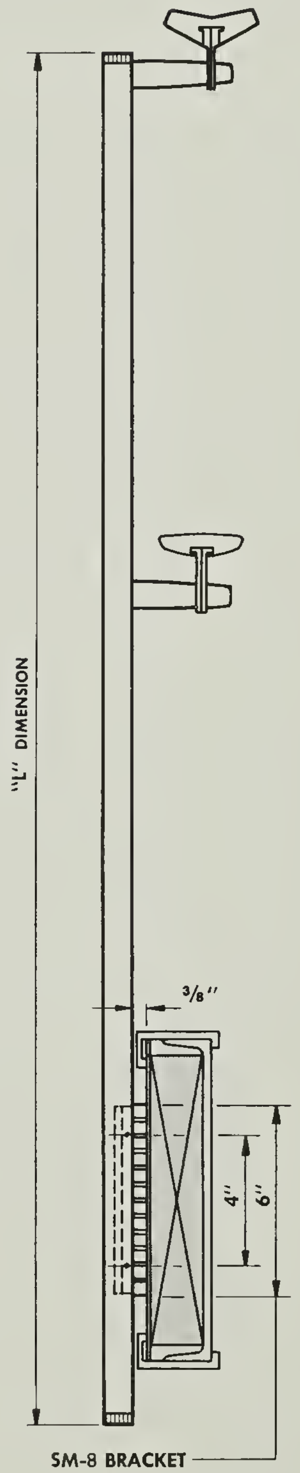

112
2 9/16"
AF-6
109
1 7/8"
AF-1
*114
1 7/8"
*2'-0" MAXIMUM POST SPACING
AF-1
157
2 3/4"
AF-6
177
2 1/16"
AF-2
FULL SIZE SECTIONS PAGES — 146-149
388
AF-15
8"
389
AF-17
8"
175
3"
AF-2
164
3 5/16"
AF-2
22-AL
3 5/8"
1 3/8"
AF-3
FOR FLAT OR CONTOURED HANDRAILS
178
1 15/16"
AF-1
396
3 3/4"
AF-1
V-167-B
2 1/4"
AF-1
391
3 3/4"
AF-1
390
2 13/16"
AF-6
121
2 3/8"
AF-2
176
2 5/8"
AF-1
167
2 1/16"
AF-1
168
2 5/16"
AF-2
395
2 13/16"
AF-6
V-168-B
2 5/8"
AF-2
ALUMINUM RAILS
VINYL RAILS
WOOD RAILS


ADJUSTABLE

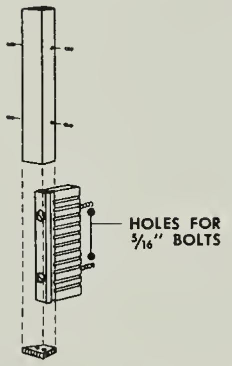
SIDE ELEVATION


11/16"
1 3/4" CF-2
2 3/16" CF-3
2 5/8" CF-6
5" CF-7
SELECT CF—FOR HAND CLEARANCE
1 3/8"
1"
4"
6"
3/8"
BC-150

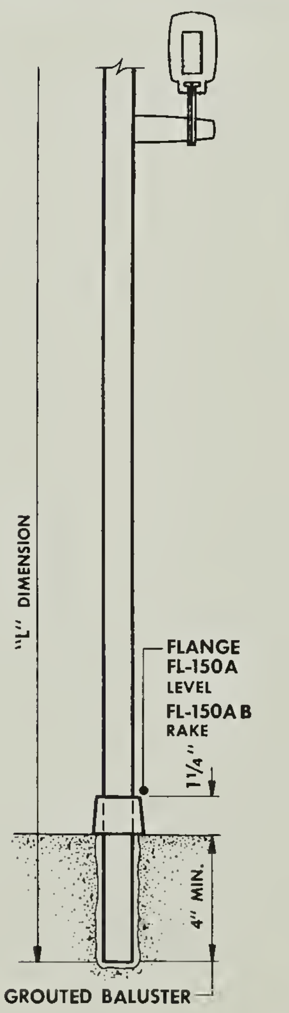
SM-7 BRACKET


"L" DIMENSION
3/8"
4"
6"

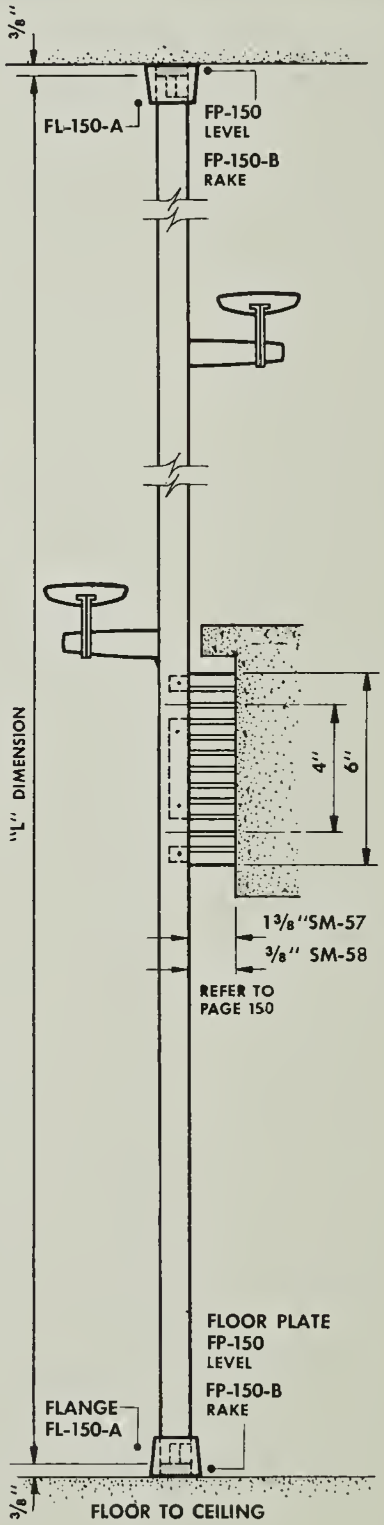
SM-8 BRACKET


HOLES FOR 5/16" BOLTS

ASSEMBLY OF POST AND BRACKETS


"L" DIMENSION
FLANGE
FL-150A
LEVEL
FL-150A B
RAKE
1 1/4"
4" MIN.

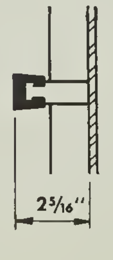
GROUTED BALUSTER

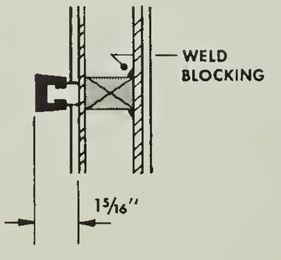

3/8"
FL-150-A
FP-150
LEVEL
FP-150-B
RAKE
"L" DIMENSION
4"
6"
1 3/8" SM-57
3/8" SM-58
REFER TO PAGE 150
FLOOR PLATE
FP-150
LEVEL
FP-150-B
RAKE
FLANGE
FL-150-A
3/8"

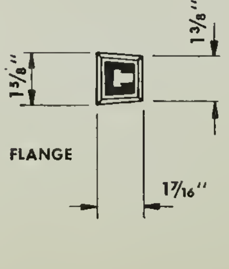
FLOOR TO CEILING

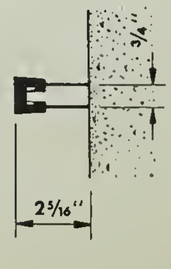
ALTERNATE MOUNTINGS

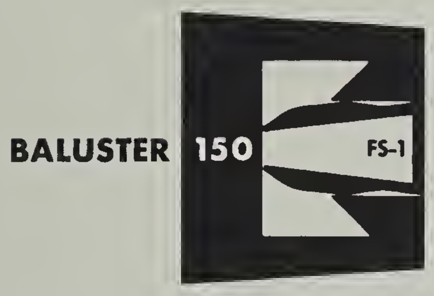
SCALE 1 1/2" = 1'-0"




WELD BLOCKING
1 5/16"


1 3/8"
1 3/8"
FLANGE
1 7/16"




BALUSTER
150
FS-1

SECTION FULL SIZE

BALUSTER SPACING—NOT TO EXCEED 1'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 1'-0" FOR LEVEL RAILING.

STARTING POSTS—USE POST 250 OR 313 (NOT BALUSTER 150)

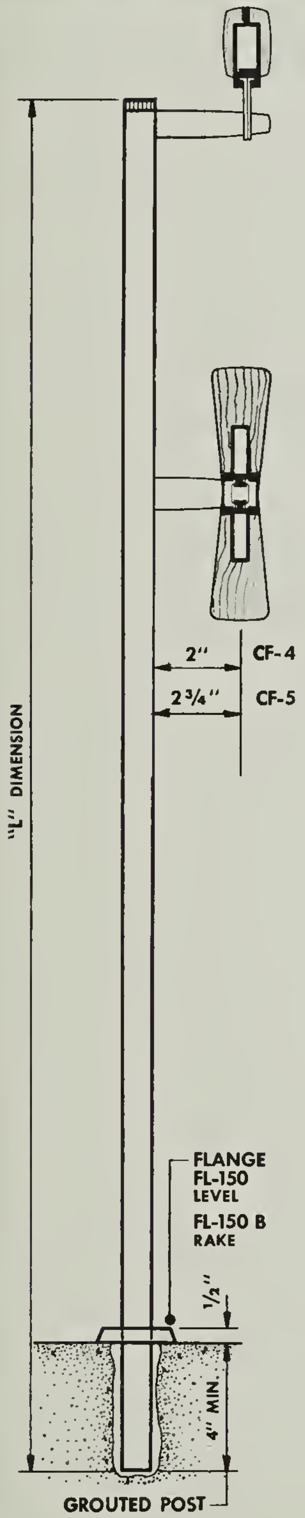
BOXED METAL STRINGERS—SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

CONCRETE STAIRS—USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE . . . ELIMINATES EXPANSION SHIELDS.

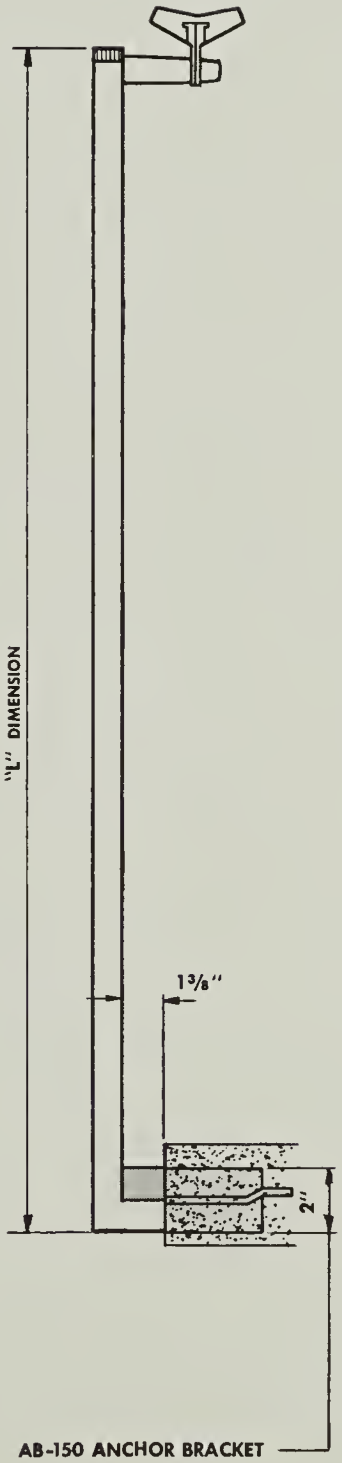
RIGIDITY—THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

FABRICATION—LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

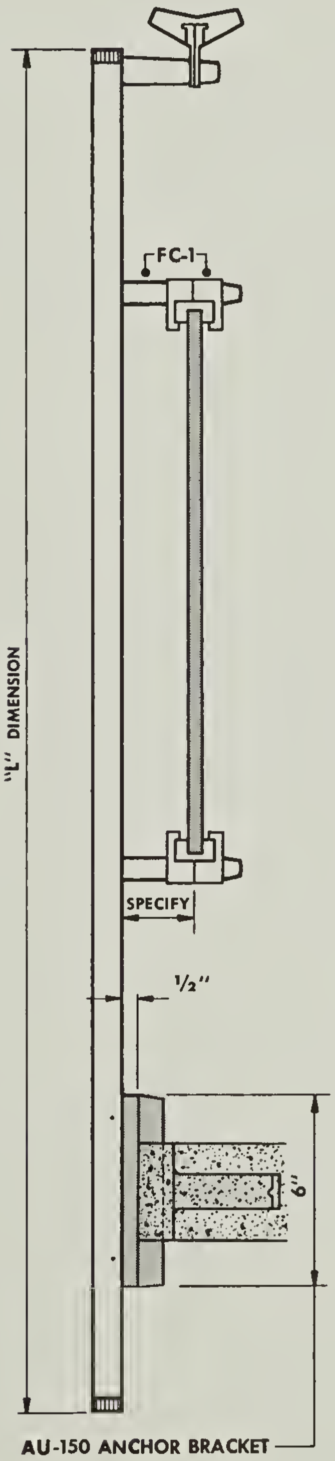
SERVICE TO ARCHITECT—OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.


"L" DIMENSION
2"
CF-4
2 3/4"
CF-5
FLANGE
FL-150
LEVEL
FL-150 B
RAKE
1/2"
4" MIN.

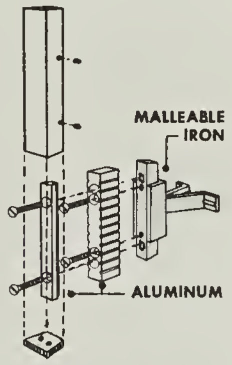
GROUTED POST


"L" DIMENSION
1 3/8"
2"

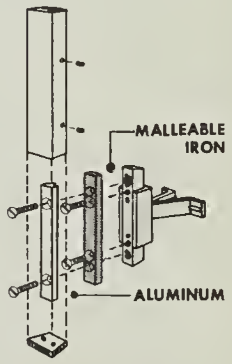
AB-150 ANCHOR BRACKET


"L" DIMENSION
FC-1
SPECIFY
1/2"
6"

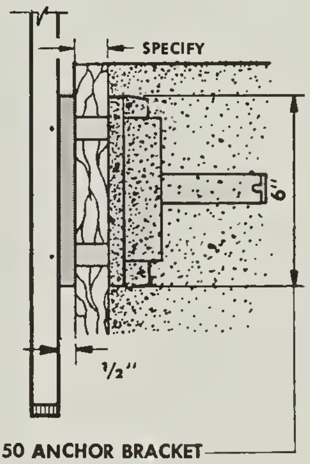
AU-150 ANCHOR BRACKET


MALLEABLE IRON
ALUMINUM

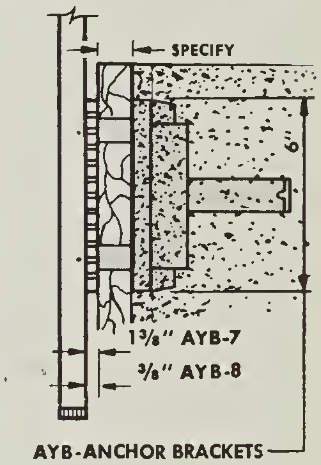
ASSEMBLY OF AY-ANCHOR BRACKET


MALLEABLE IRON
ALUMINUM

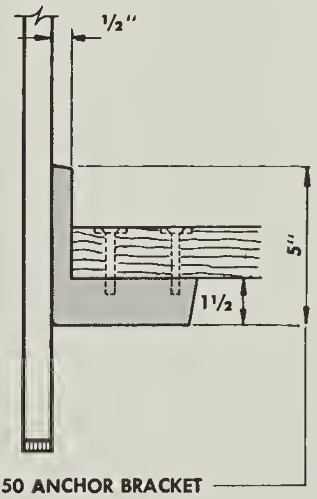
ASSEMBLY OF AU-ANCHOR BRACKET


SPECIFY
6"
1/2"

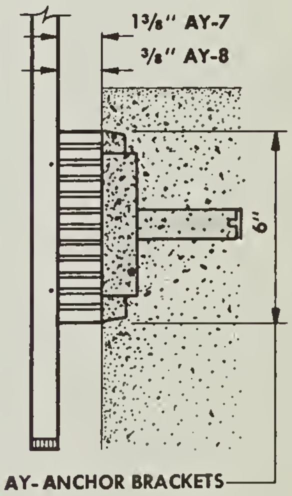
AUB-150 ANCHOR BRACKET


SPECIFY
6"
1 3/8" AYB-7
3/8" AYB-8

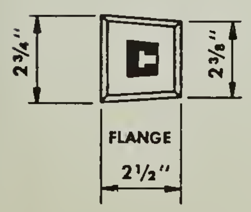
AYB-ANCHOR BRACKETS

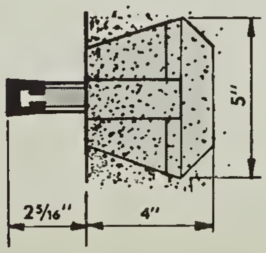


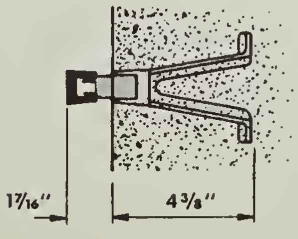
ABW-150 ANCHOR BRACKET

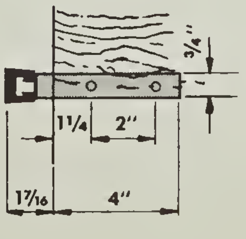

1 3/8" AY-7
3/8" AY-8
6"

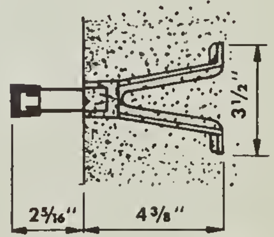
AY-ANCHOR BRACKETS

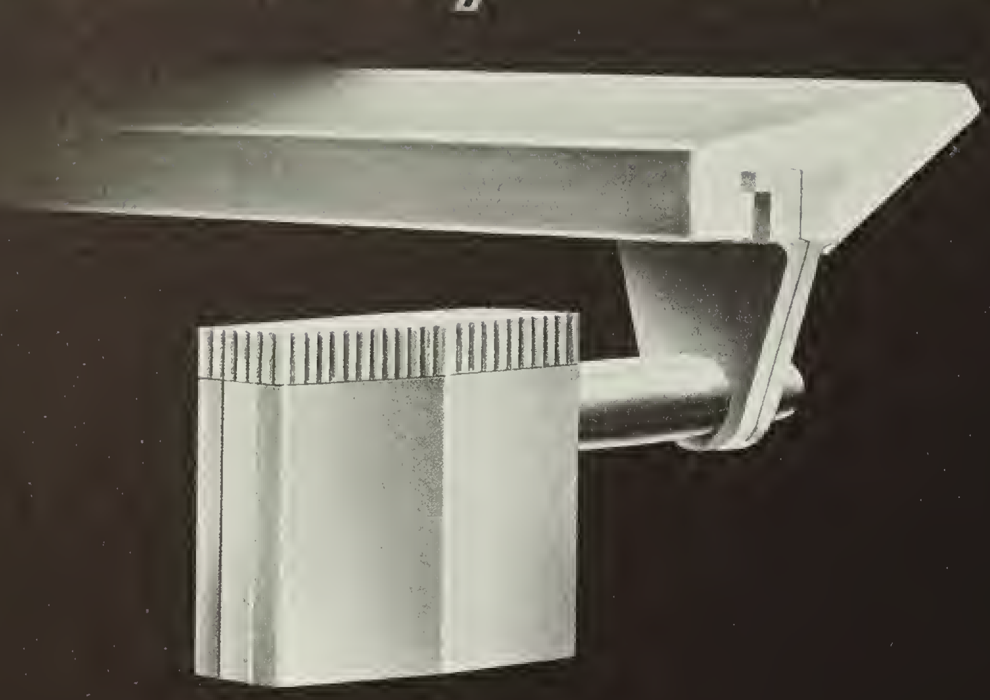

2 3/4"
2 5/8"
FLANGE
2 1/2"

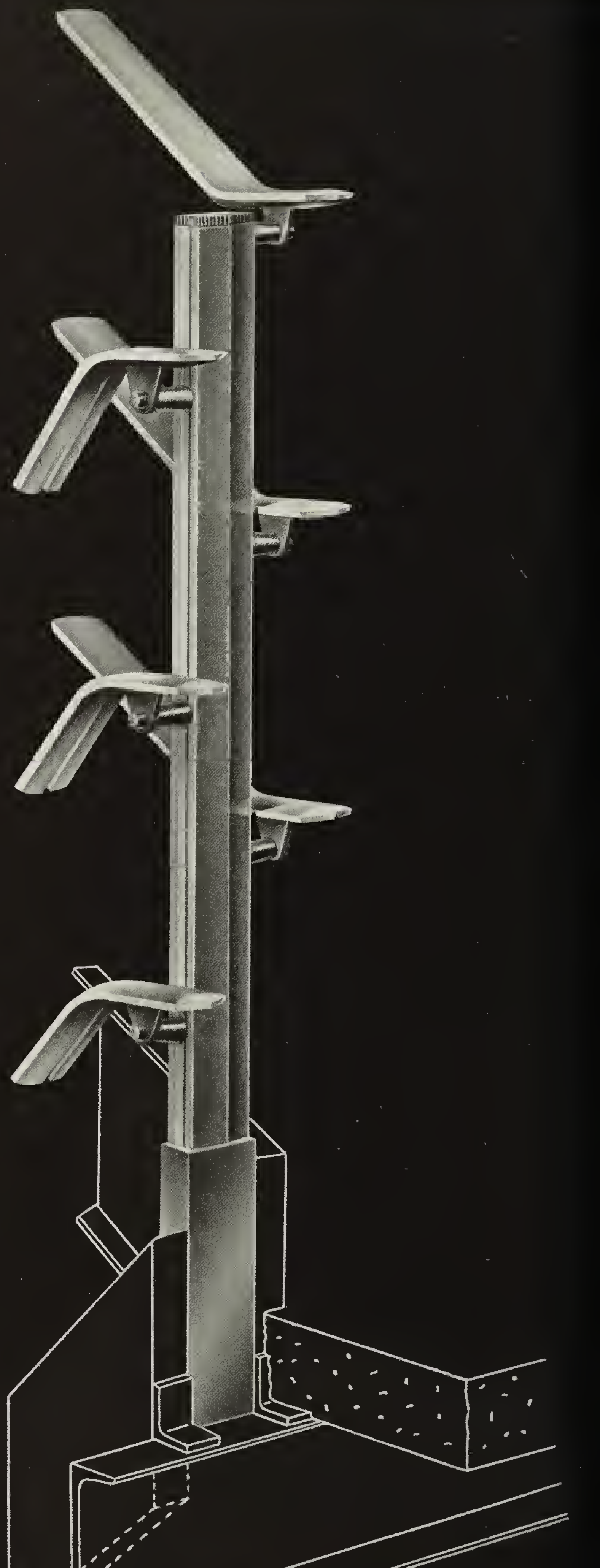





3/4"
1 1/4
2"
1 7/16
4"

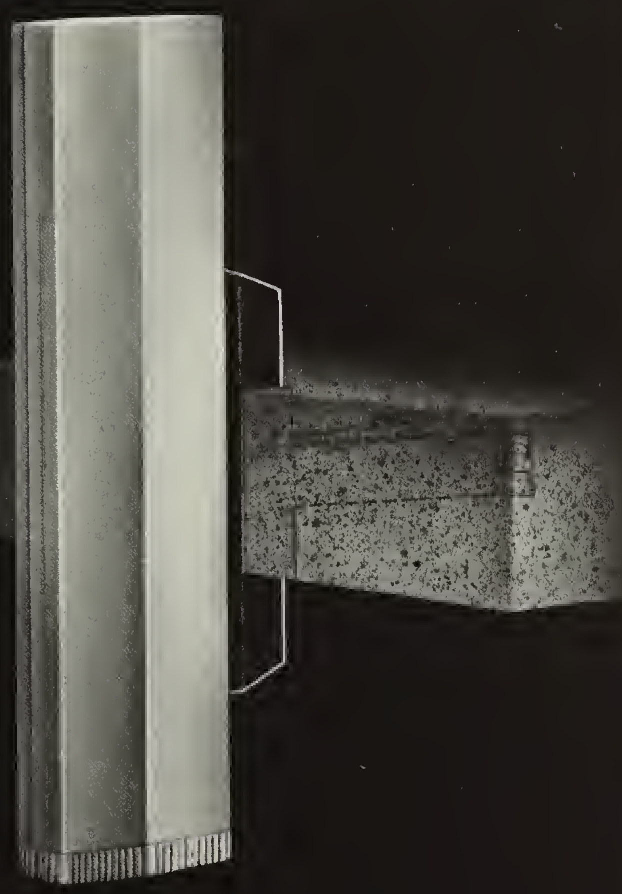

3 1/2"
2 5/16"
4 3/8"

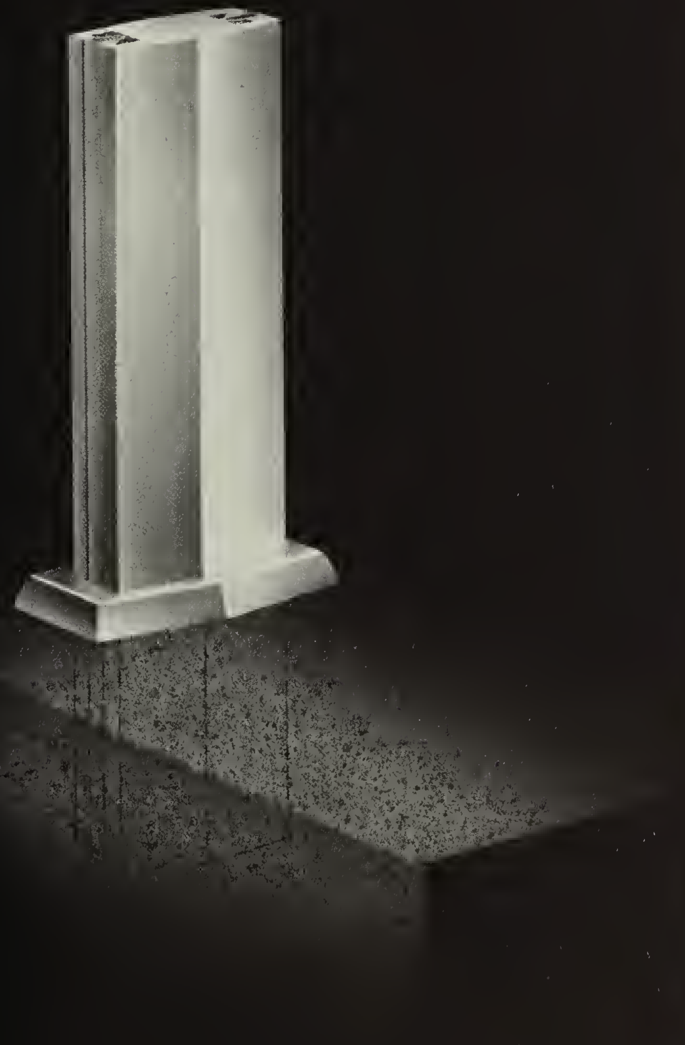




BLUMCRAFT'S ORIGINAL DESIGNS AND STRUCTURES ARE FULLY COVERED BY PATENTS AND PENDING PATENT APPLICATIONS IN THE UNITED STATES AND CANADA.

SUGGESTED APPLICATIONS





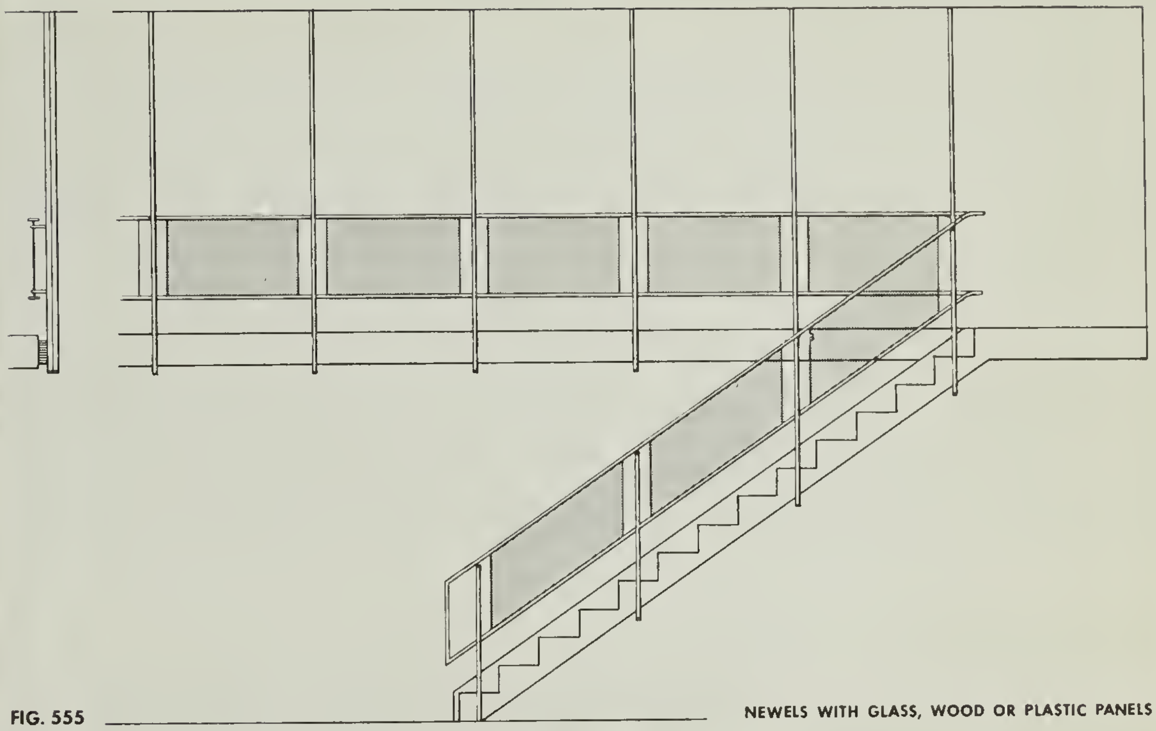


FIG. 555

NEWELS WITH GLASS, WOOD OR PLASTIC PANELS

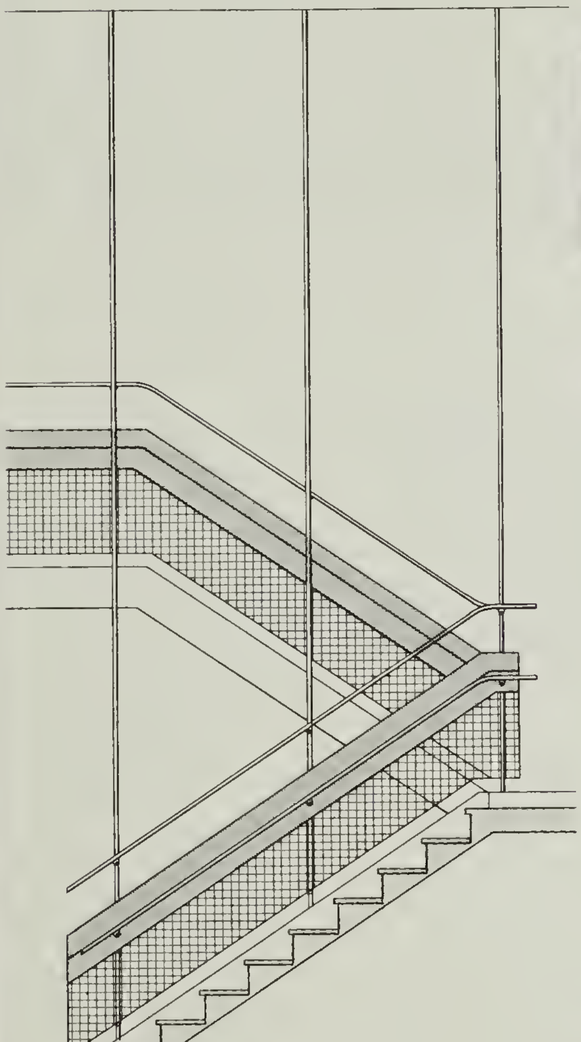
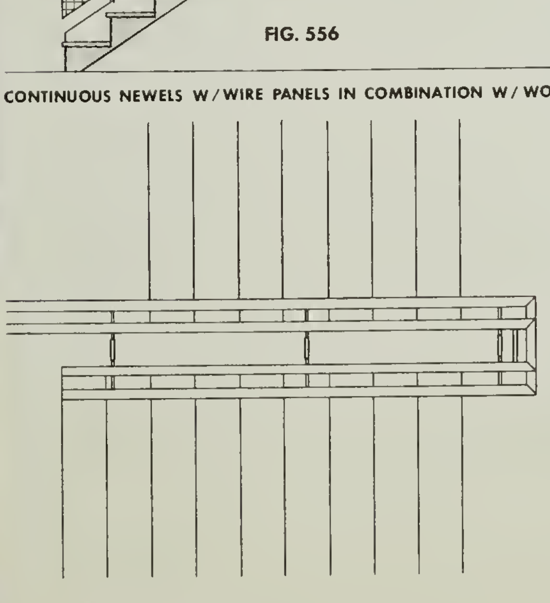


FIG. 556

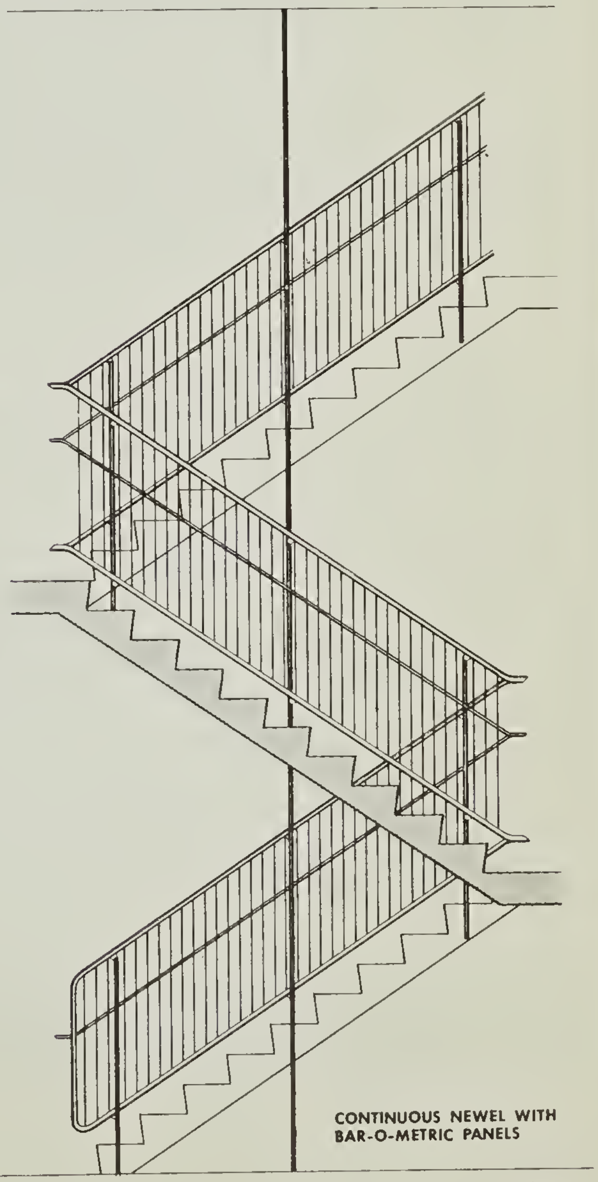
CONTINUOUS NEWELS W/WIRE PANELS IN COMBINATION W/WOOD



PLAN OF FIG. 556

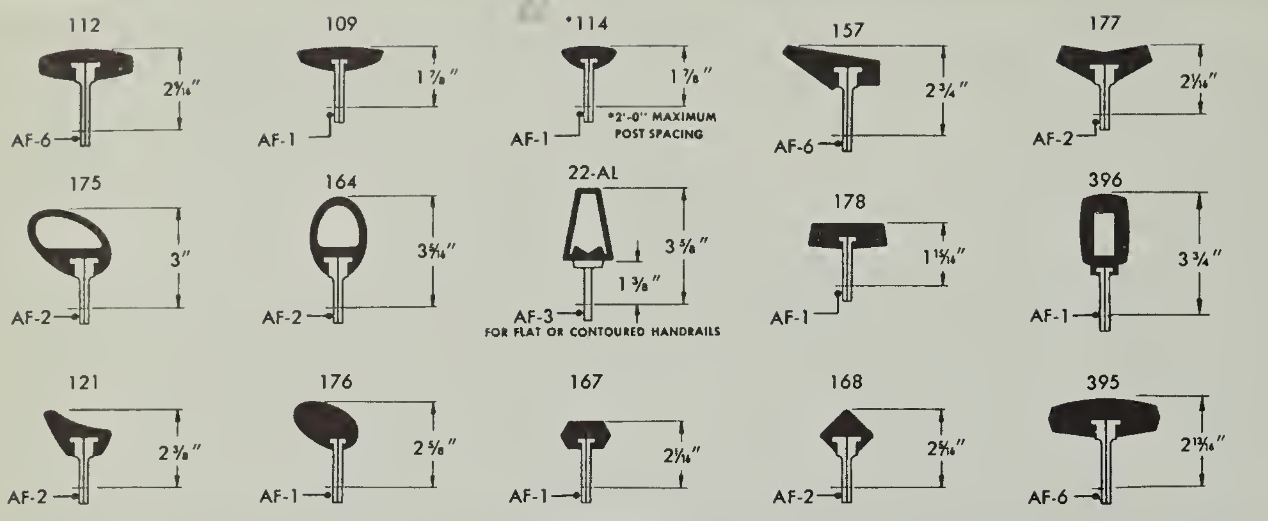
DETAILS

HEAVY DUTY POST FOR HIGH RAILINGS AND HEAVY TRAFFIC. RECOMMENDED FOR SCHOOLS AND PUBLIC INSTITUTIONS.



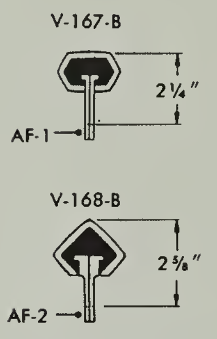
CONTINUOUS NEWEL WITH BAR-O-METRIC PANELS

FIG. 557

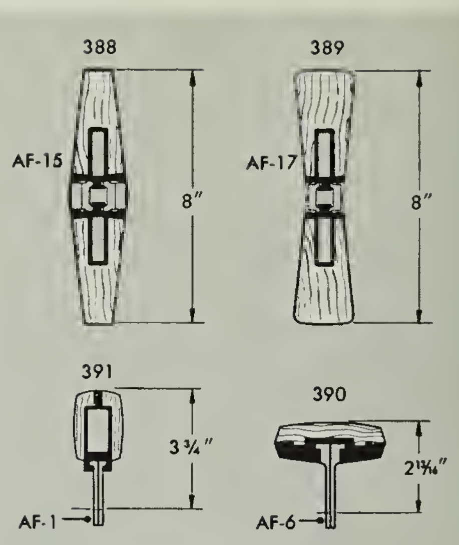

112
2⁹⁄₁₆"
AF-6
109
1⅞"
AF-1
*114
1⅞"
AF-1
*2'-0" MAXIMUM POST SPACING
157
2¾"
AF-6
177
2¹⁄₁₆"
AF-2
175
3"
AF-2
164
3⁵⁄₁₆"
AF-2
22-AL
3⅝"
1⅜"
AF-3
FOR FLAT OR CONTOURED HANDRAILS
178
1¹⁵⁄₁₆"
AF-1
396
3¾"
AF-1
121
2⅜"
AF-2
176
2⅝"
AF-1
167
2¹⁄₁₆"
AF-1
168
2⁵⁄₁₆"
AF-2
395
2¹³⁄₁₆"
AF-6

ALUMINUM RAILS

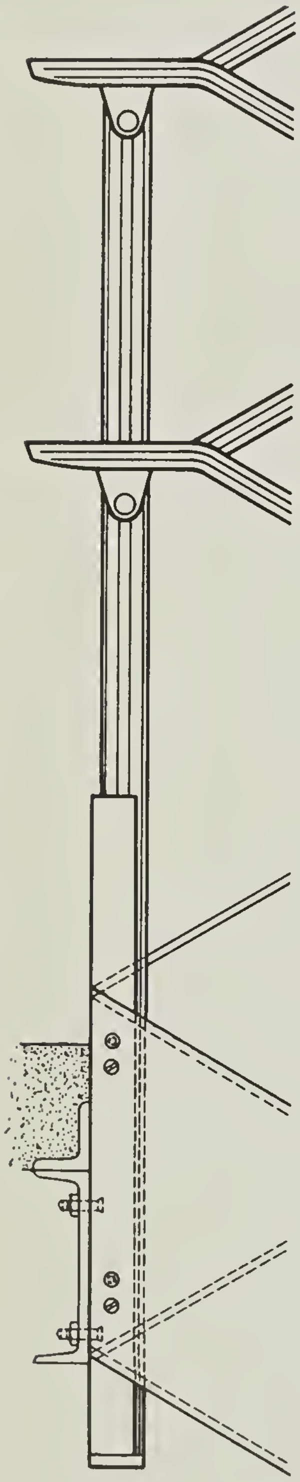
FULL SIZE SECTIONS
PAGES — 146-149


V-167-B
2¼"
AF-1
V-168-B
2⅝"
AF-2

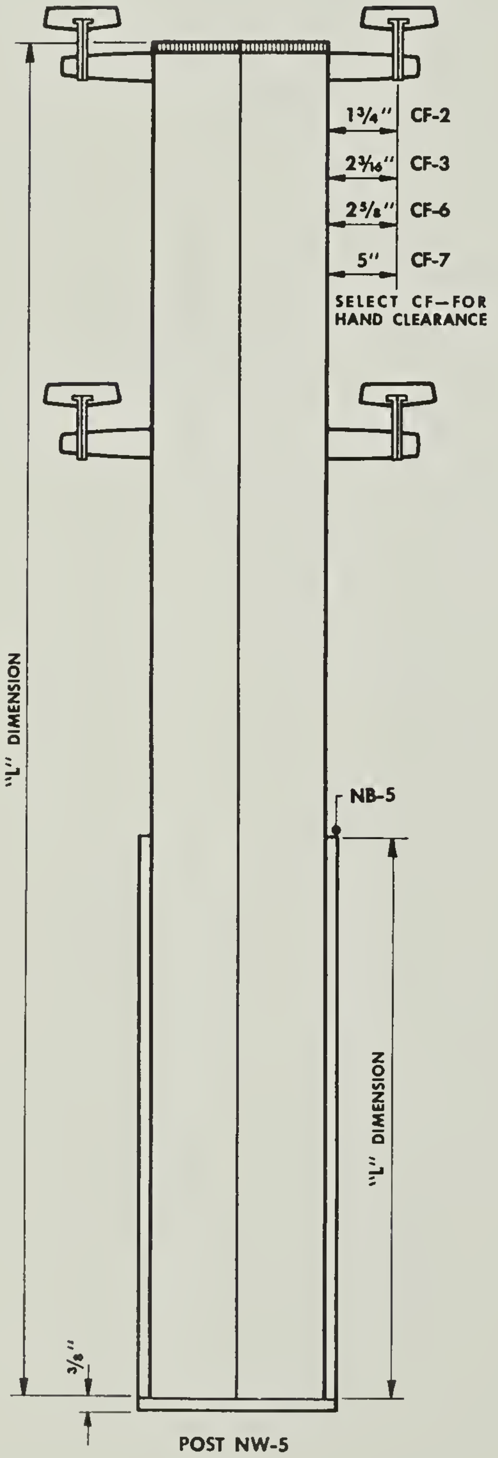
VINYL RAILS


388
AF-15
8"
389
AF-17
8"
391
3¾"
AF-1
390
2¹³⁄₁₆"
AF-6

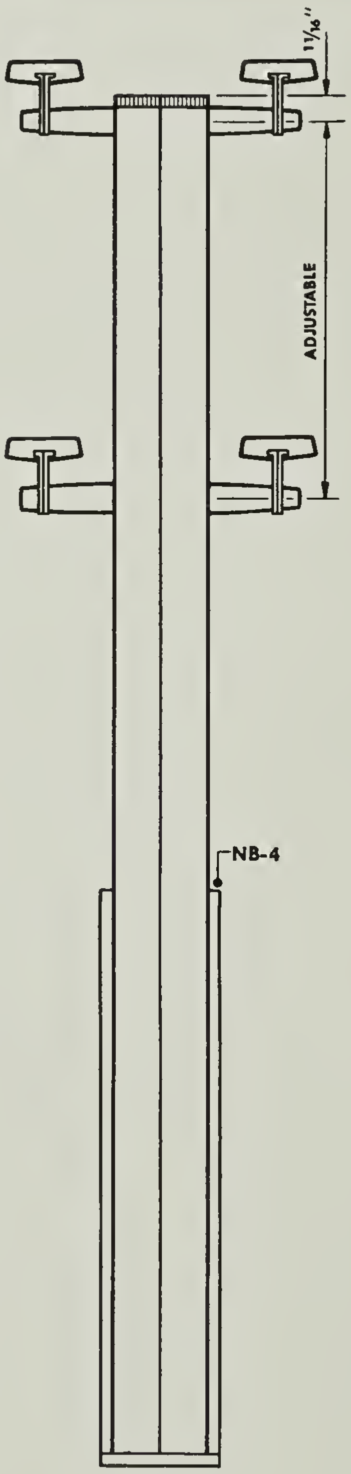
WOOD RAILS



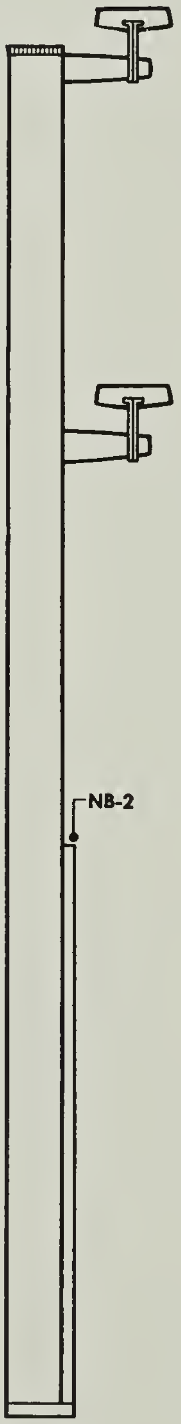
SIDE ELEVATION


1¾" CF-2
2³⁄₁₆" CF-3
2⅝" CF-6
5" CF-7
SELECT CF—FOR HAND CLEARANCE
"L" DIMENSION
NB-5
"L" DIMENSION
⅜"

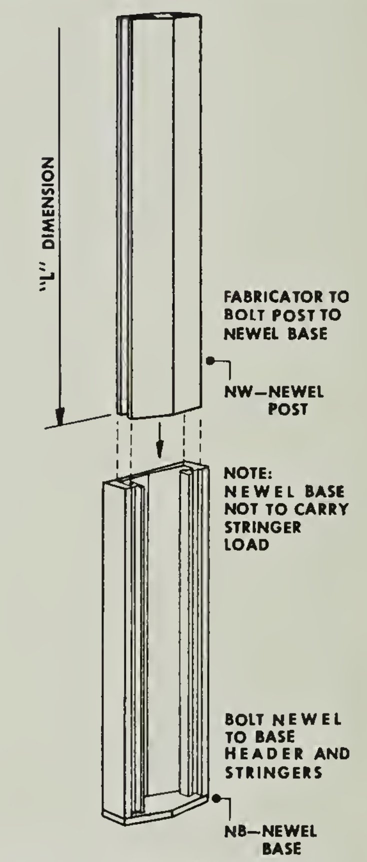
POST NW-5


1¹⁄₁₆"
ADJUSTABLE
NB-4

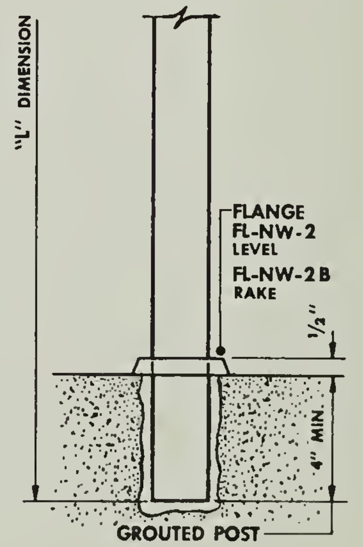
POST NW-4



POST NW-2

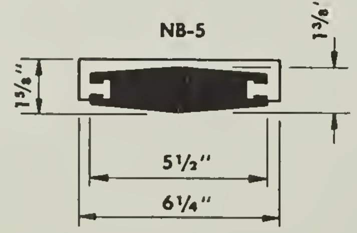

"L" DIMENSION
FABRICATOR TO BOLT POST TO NEWEL BASE
NW—NEWEL POST
NOTE: NEWEL BASE NOT TO CARRY STRINGER LOAD
BOLT NEWEL TO BASE HEADER AND STRINGERS
NB—NEWEL BASE

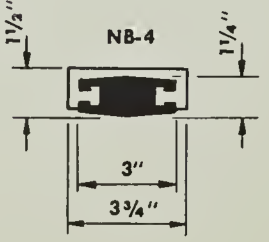
NEWEL POST ASSEMBLY

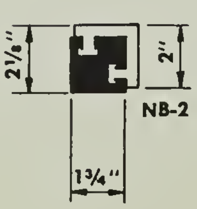

"L" DIMENSION
FLANGE
FL-NW-2
LEVEL
FL-NW-2B
RAKE
½"
4" MIN.

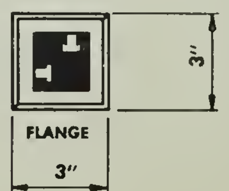
GROUTED POST

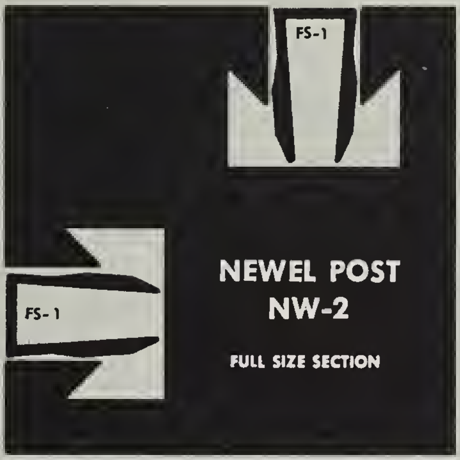
ALTERNATE MOUNTINGS
SCALE 1½" = 1'-0"


NB-5
1⅜"
1⅝"
5½"
6¼"


NB-4
1½"
1¼"
3"
3¾"






FS-1
FS-1
NEWEL POST
NW-2
FULL SIZE SECTION

POST SPACING——NOT TO EXCEED 4'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 4'-0" FOR LEVEL RAILING EXCEPT WHEN USING NO. 114 HANDRAIL MAXIMUM POST SPACING 2'-0". REFER TO PAGE 150

STARTING POSTS——INCLUDING THOSE WITH SIDE MOUNTED BRACKETS, SHOULD EXTEND INTO FLOOR FOR ADDED RIGIDITY.

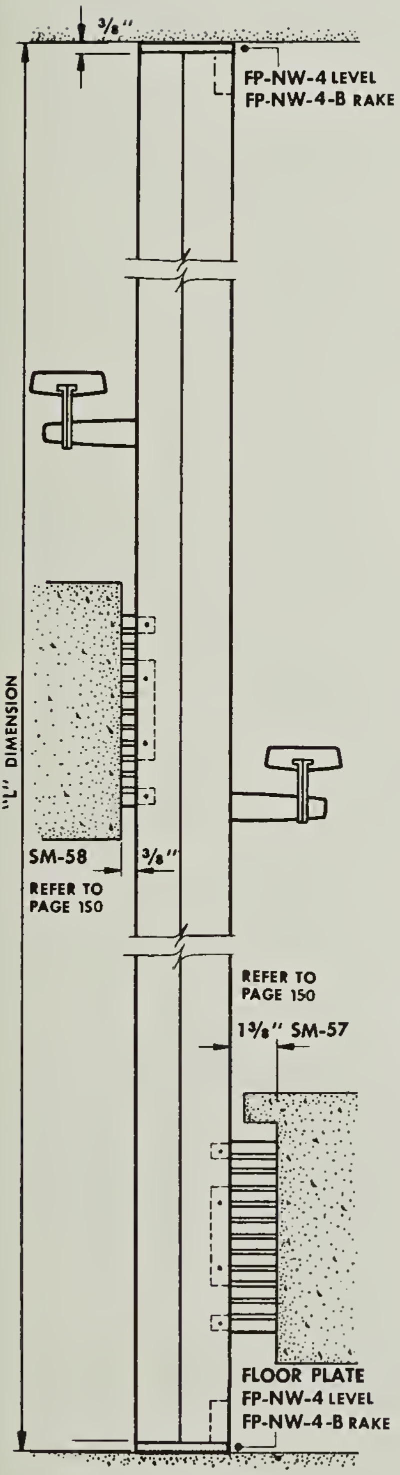
BOXED METAL STRINGERS——SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

CONCRETE STAIRS——USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE . . . ELIMINATES EXPANSION SHIELDS.

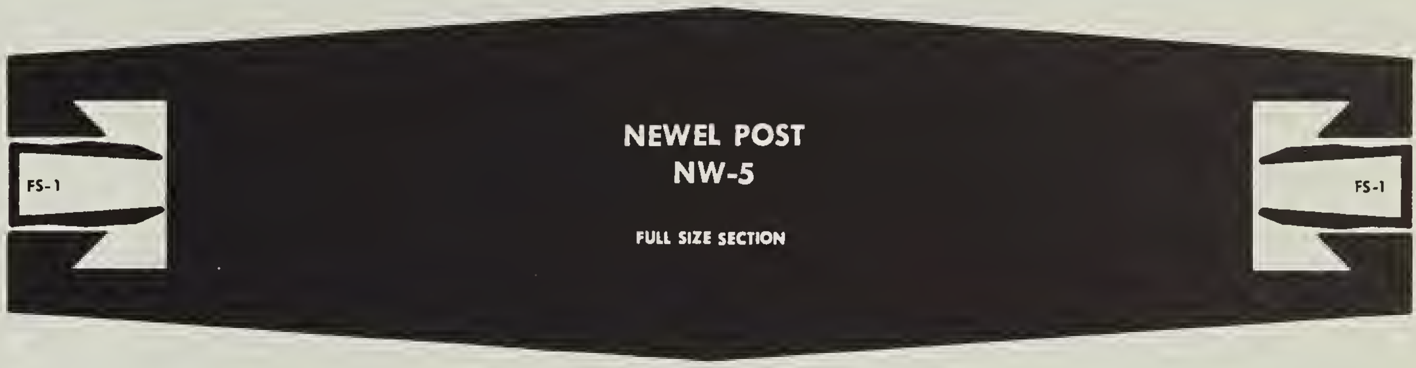
RIGIDITY——THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

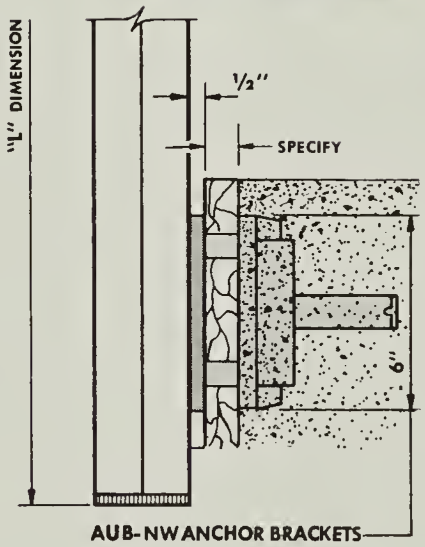
FABRICATION——LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

SERVICE TO ARCHITECT——OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY. DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.

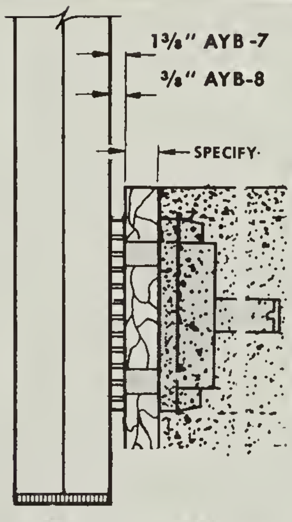

3/8"
FP-NW-4 LEVEL
FP-NW-4-B RAKE
"L" DIMENSION
SM-58
3/8"
REFER TO PAGE 150
REFER TO PAGE 150
1 3/8" SM-57
FLOOR PLATE
FP-NW-4 LEVEL
FP-NW-4-B RAKE

FLOOR TO CEILING

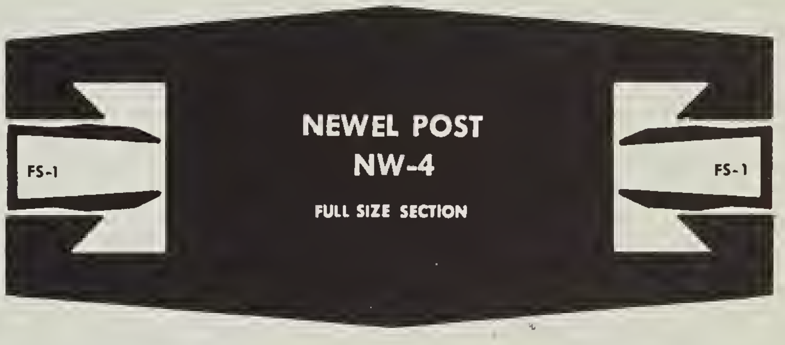

FS-1
NEWEL POST
NW-5
FULL SIZE SECTION
FS-1

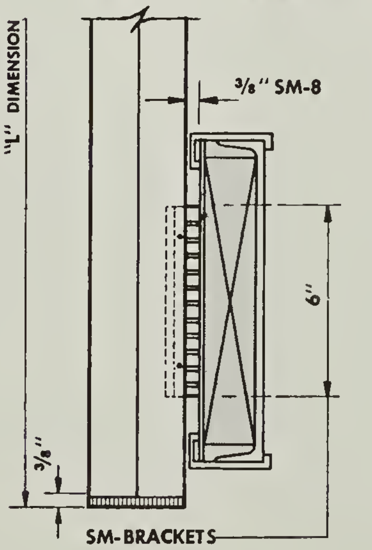

"L" DIMENSION
1/2"
SPECIFY
6"

AUB-NW ANCHOR BRACKETS

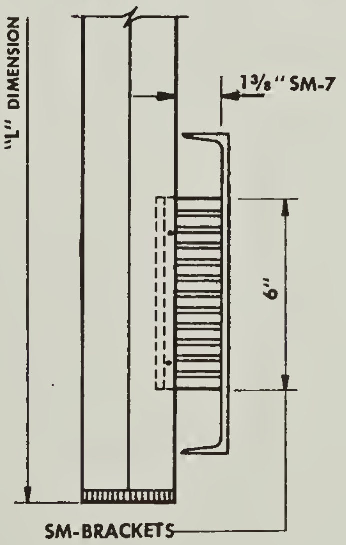

1 3/8" AYB-7
3/8" AYB-8
SPECIFY

AYB-NW ANCHOR BRACKETS

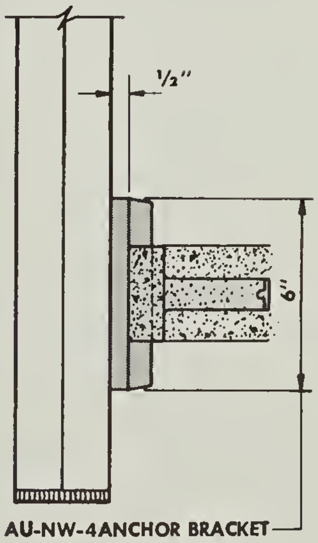

FS-1
NEWEL POST
NW-4
FULL SIZE SECTION
FS-1


"L" DIMENSION
3/8" SM-8
6"
3/8"

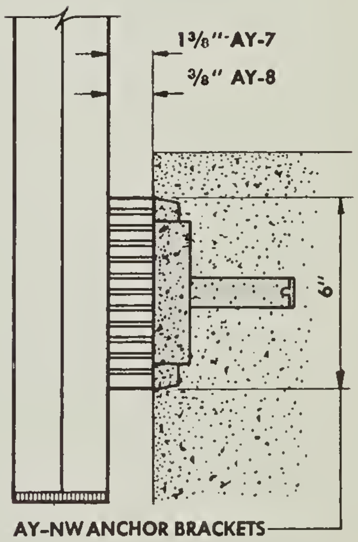
SM-BRACKETS


"L" DIMENSION
1 3/8" SM-7
6"

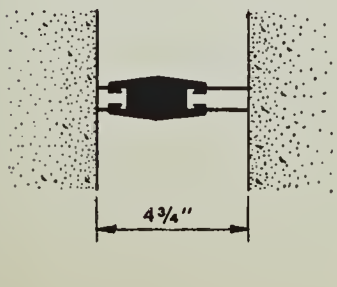
SM-BRACKETS

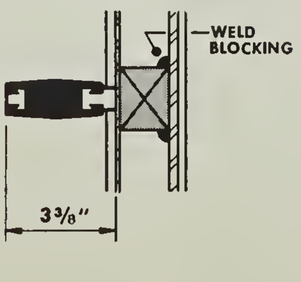


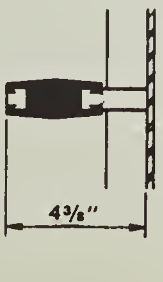
AU-NW-4 ANCHOR BRACKET

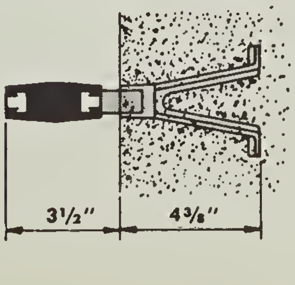

1 3/8" AY-7
3/8" AY-8
6"

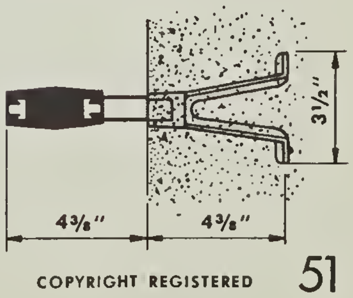
AY-NW ANCHOR BRACKETS

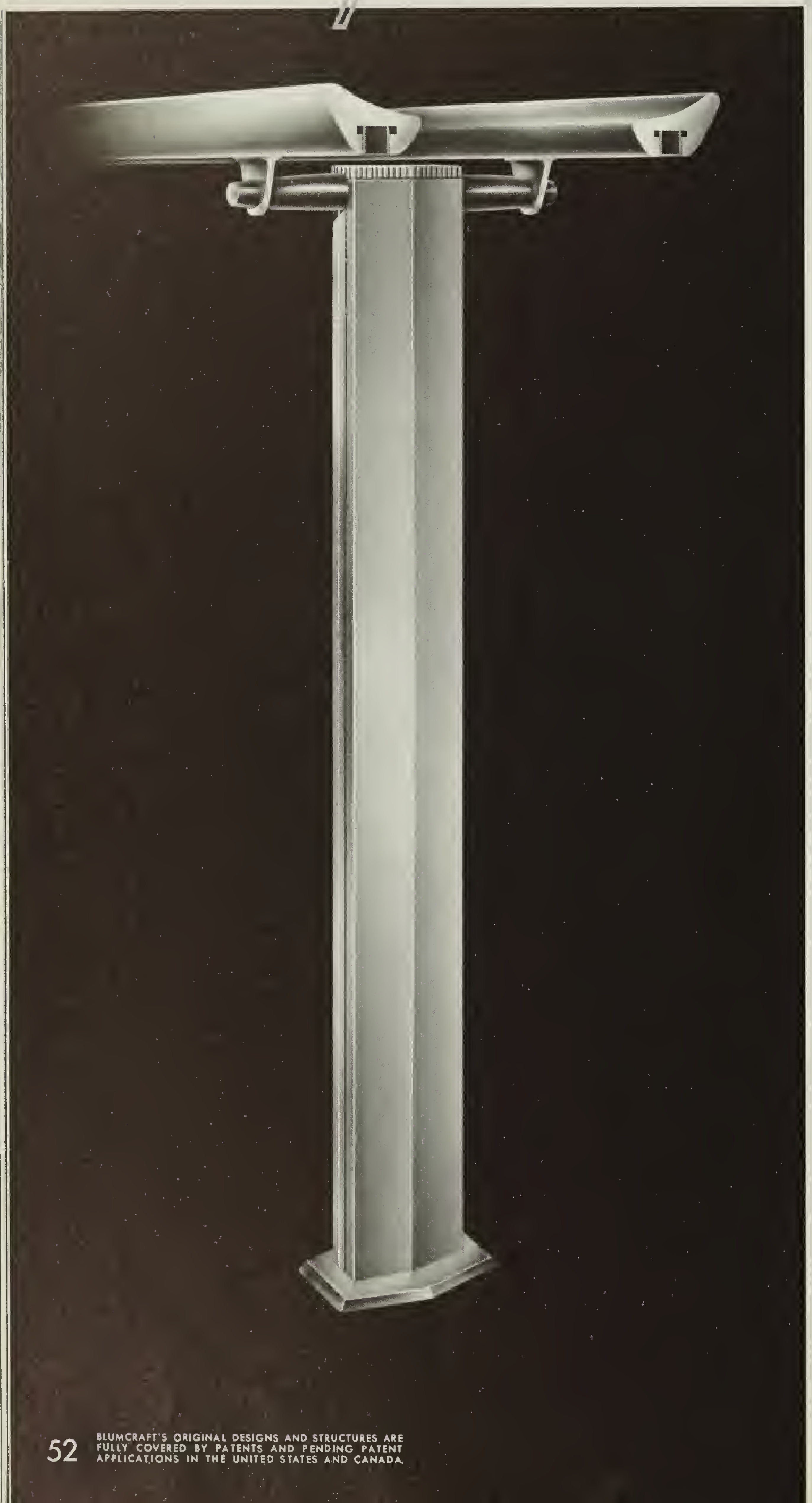


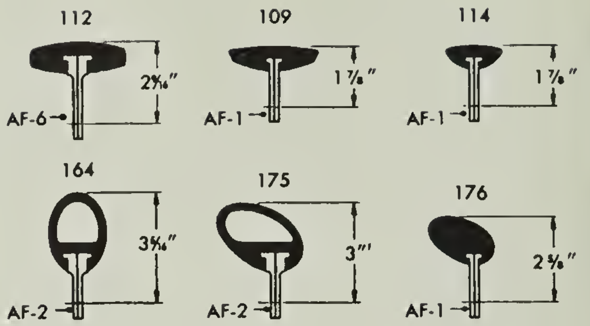

WELD BLOCKING
3 3/8"











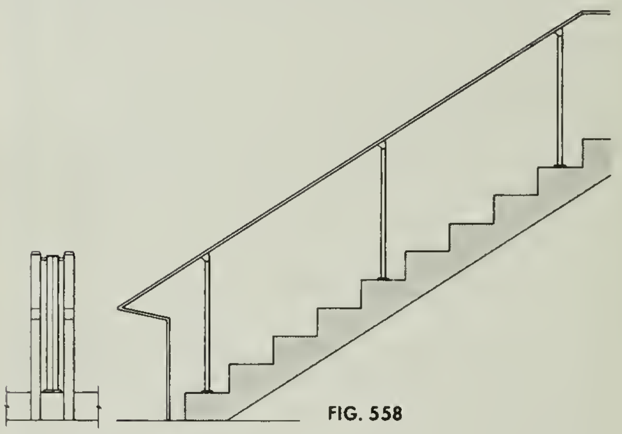


FIG. 558

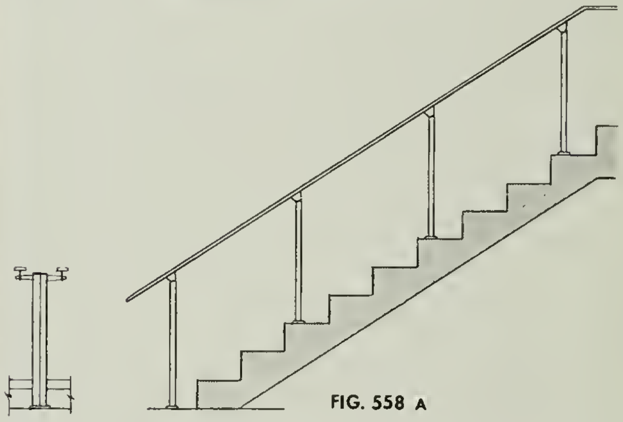


FIG. 558 A

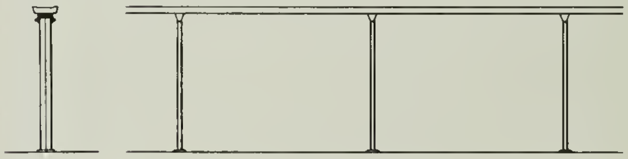


FIG. 558 B

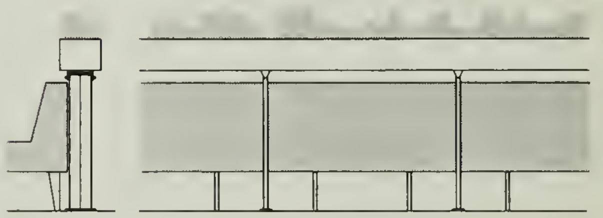


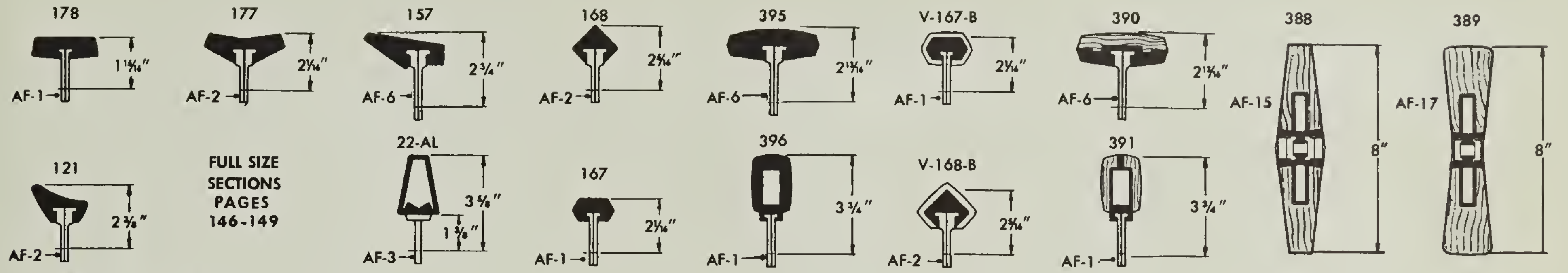
FIG. 558 C

POST SPACING — NOT TO EXCEED 4'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 4'-0" FOR LEVEL RAILING. REFER TO PAGE 150

RIGIDITY — THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

SERVICE TO ARCHITECT — OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.

FABRICATION — LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE, WOOD FURNISHED BY OTHERS AS SPECIFIED BY ARCHITECT.

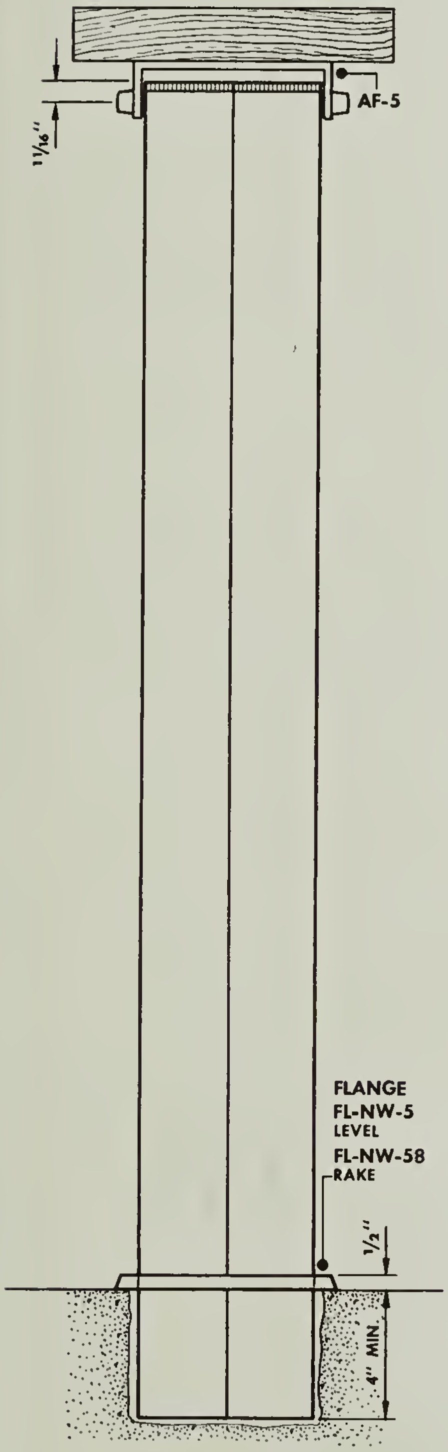

178
1 15/16"
AF-1
177
2 1/16"
AF-2
157
2 3/4"
AF-6
168
2 5/16"
AF-2
395
2 13/16"
AF-6
V-167-B
2 1/16"
AF-1
390
2 13/16"
AF-6
388
AF-15
8"
389
AF-17
8"
121
2 3/8"
AF-2
22-AL
3 5/8"
1 3/8"
AF-3
167
2 1/16"
AF-1
396
3 3/4"
AF-1
V-168-B
2 5/16"
AF-2
391
3 3/4"
AF-1

FULL SIZE SECTIONS PAGES 146-149

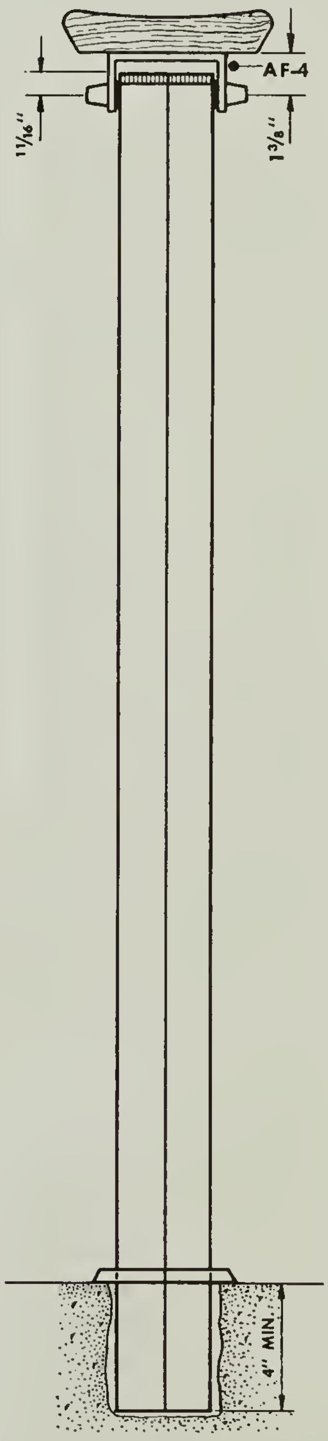
ALUMINUM RAILS

VINYL RAILS

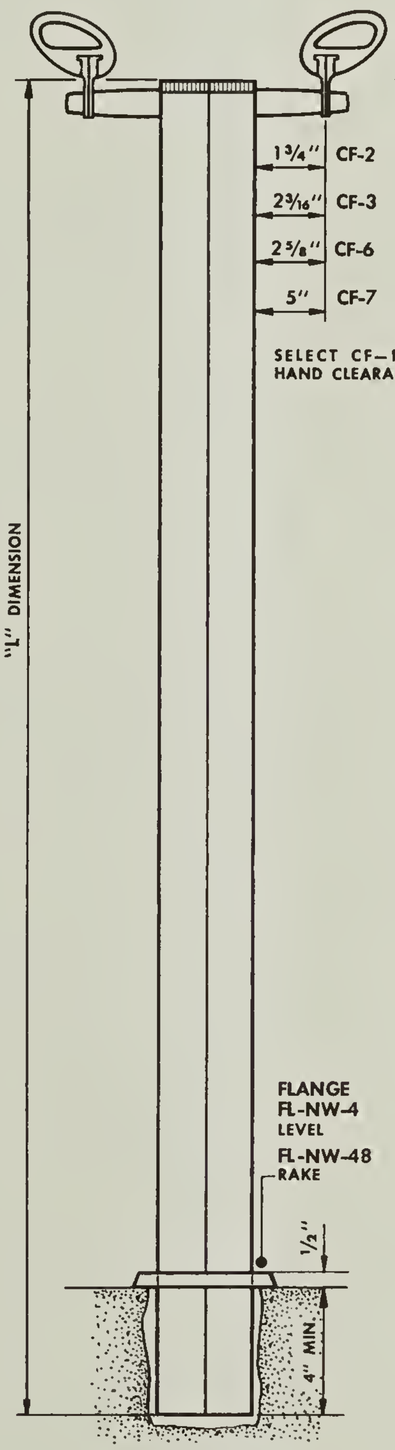
WOOD RAILS


AF-5
11/16"
FLANGE
FL-NW-5
LEVEL
FL-NW-58
RAKE
1/2"
4" MIN.

POST NW-5

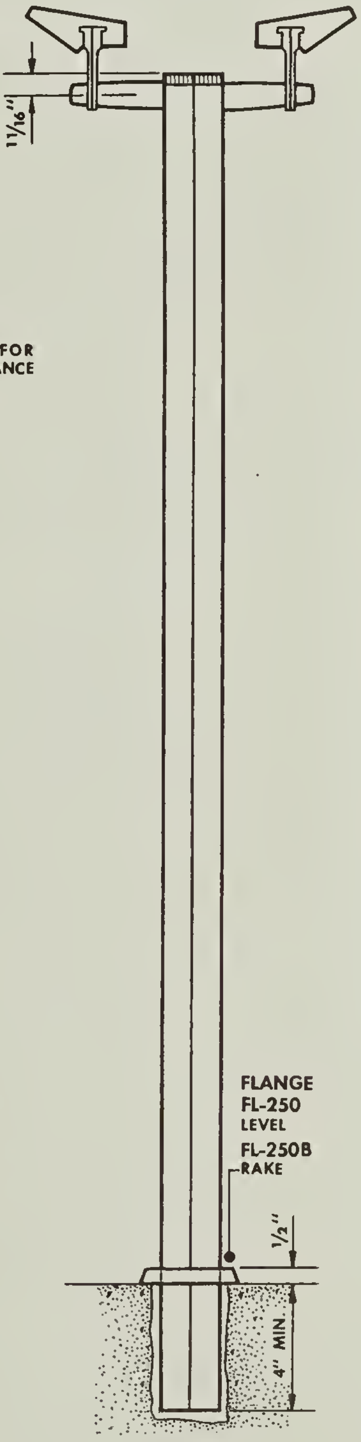

AF-4
11/16"
1 3/8"
1/2"
4" MIN.

POST NW-4

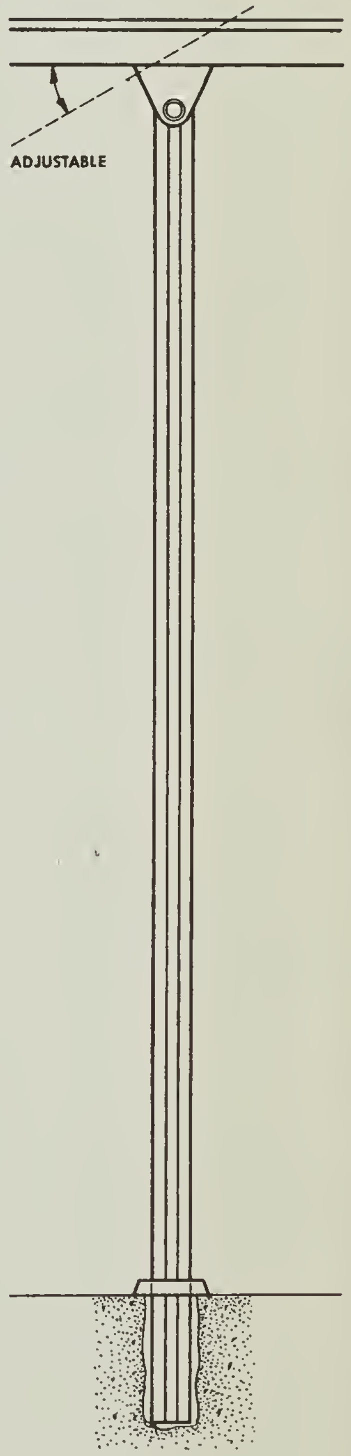

"L" DIMENSION
1 3/4" CF-2
2 3/16" CF-3
2 5/8" CF-6
5" CF-7
FLANGE
FL-NW-4
LEVEL
FL-NW-48
RAKE
1/2"
4" MIN.

SELECT CF—FOR HAND CLEARANCE

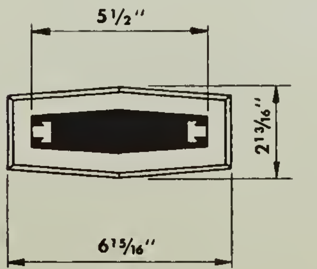
POST NW-4

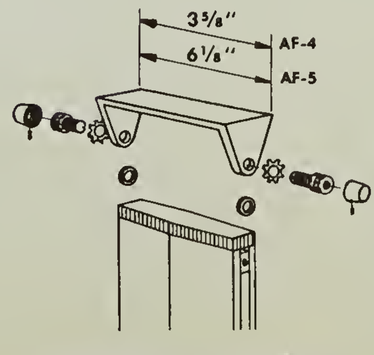

11/16"
FLANGE
FL-250
LEVEL
FL-250B
RAKE
1/2"
4" MIN.

POST 250

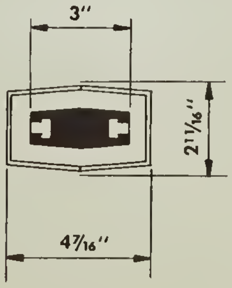

ADJUSTABLE

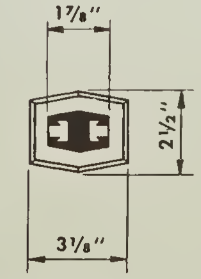
SIDE ELEVATION


5 1/2"
2 13/16"
6 15/16"


3 5/8"
AF-4
6 1/8"
AF-5

FULL SIZE SECTIONS, REFER TO PAGE 51

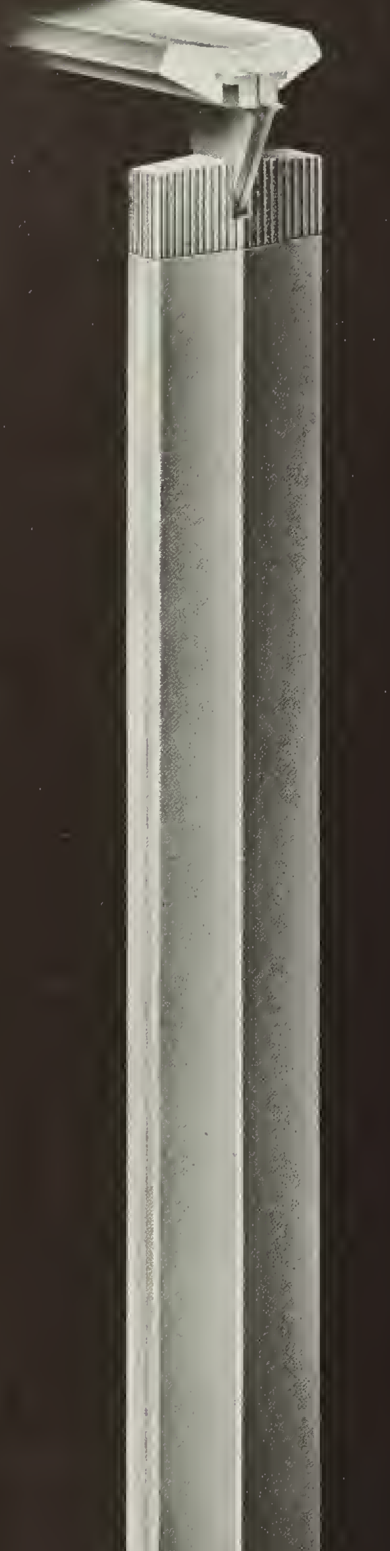

3"
2 11/16"
4 7/16"



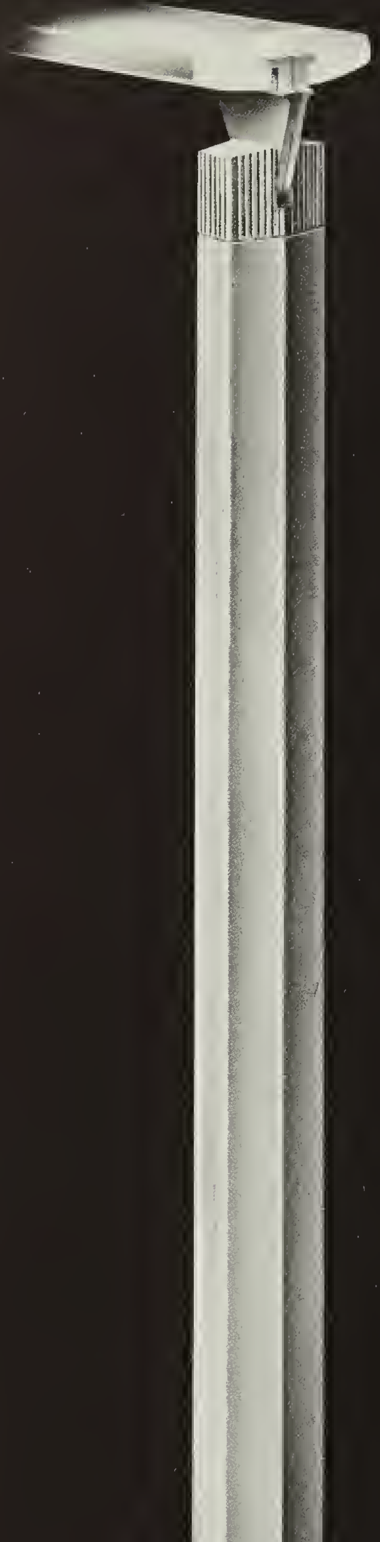
FULL SIZE POST SECTION REFER TO PAGE 43

SEE PAGES 54 AND 55 FOR HANDRAILS CENTERED ON POST.

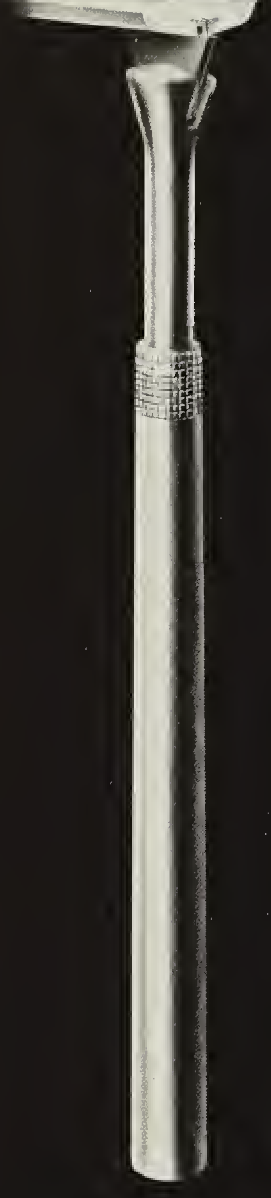
SCALE 1 1/2" = 1'-0"



POST PC-NW-4



POST PC-250

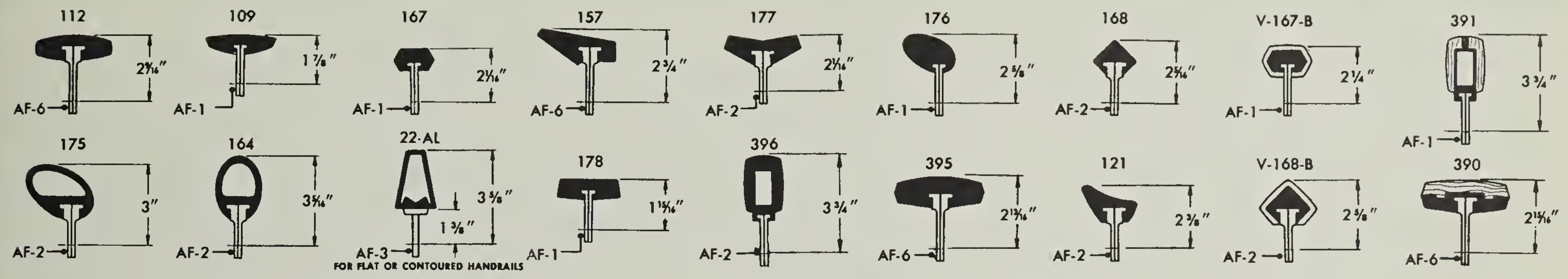


POST PC-SP-11

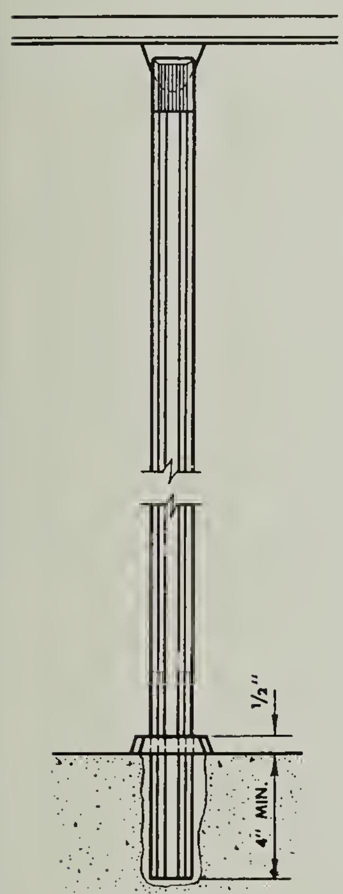
POST PC-10

BLUMCRAFT'S ORIGINAL DESIGNS AND STRUCTURES ARE FULLY COVERED BY PATENTS AND PENDING PATENT APPLICATIONS IN THE UNITED STATES AND CANADA.

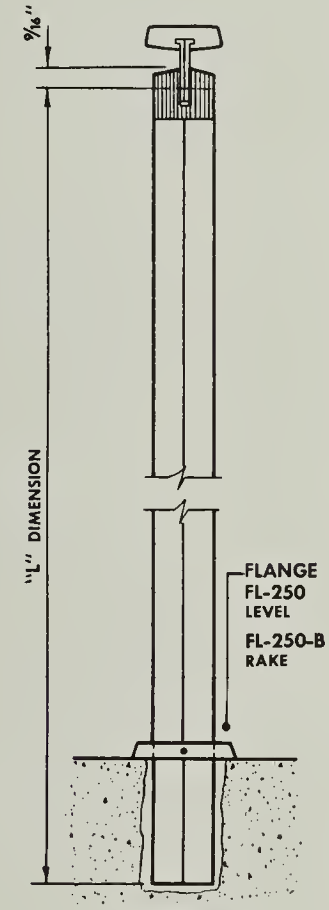
DELUXE-LINE


112
2⁹⁄₁₆"
AF-6
109
1⅞"
AF-1
167
2¹⁄₁₆"
AF-1
157
2¾"
AF-6
177
2¹⁄₁₆"
AF-2
176
2⅝"
AF-1
168
2⁹⁄₁₆"
AF-2
V-167-B
2¼"
AF-1
391
3¾"
AF-1
175
3"
AF-2
164
3⁵⁄₁₆"
AF-2
22-AL
3⅝"
1⅜"
AF-3
FOR FLAT OR CONTOURED HANDRAILS
178
1¹⁵⁄₁₆"
AF-1
396
3¾"
AF-2
395
2¹³⁄₁₆"
AF-6
121
2⅜"
AF-2
V-168-B
2⅝"
AF-2
390
2¹⁵⁄₁₆"
AF-6

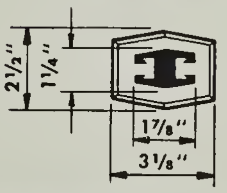
ALUMINUM RAILS FULL SIZE SECTIONS PAGES — 146-149 VINYL RAILS WOOD RAILS

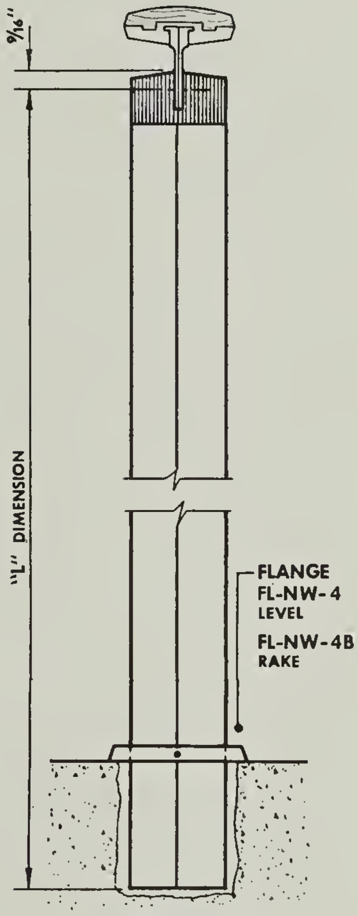


SIDE ELEVATION
POST PC-250
POST PC-NW-4

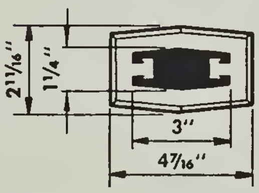

⁹⁄₁₆"
"L" DIMENSION
FLANGE
FL-250
LEVEL
FL-250-B
RAKE

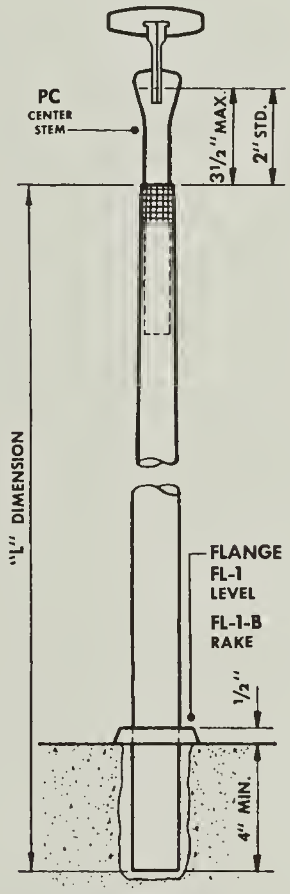
POST PC-250



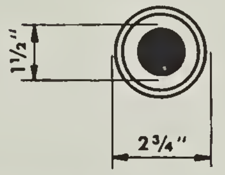

⁹⁄₁₆"
"L" DIMENSION
FLANGE
FL-NW-4
LEVEL
FL-NW-4B
RAKE

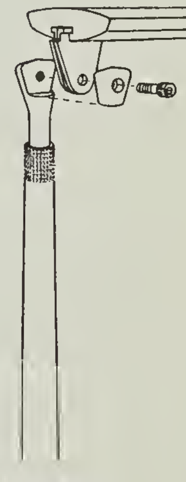
POST PC-NW-4


2¹¹⁄₁₆"
1¼"
3"
4⁷⁄₁₆"

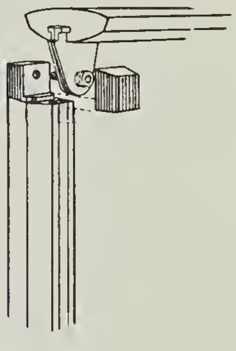

PC
CENTER
STEM
3½" MAX.
2" STD.
"L" DIMENSION
FLANGE
FL-1
LEVEL
FL-1-B
RAKE
½"
4" MIN.

POST PC-SP-11





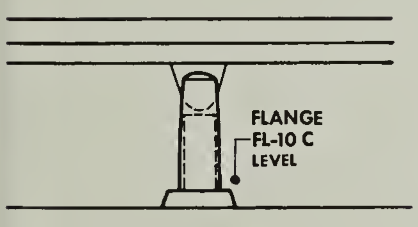
ASSEMBLY
POST PC-SP-11



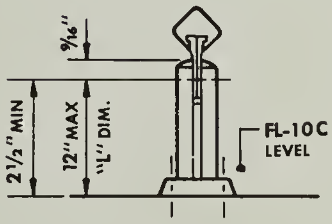
ASSEMBLY
POST PC-250
POST PC-NW-4

FULL SIZE POST SECTIONS ON PREVIOUS PAGES

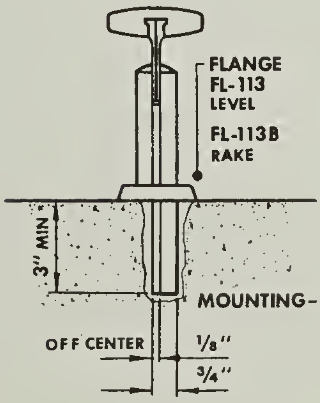
SCALE 1½"=1'-0"


FLANGE
FL-10 C
LEVEL

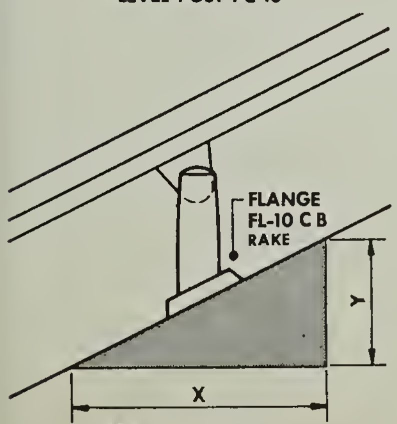
LEVEL POST PC-10


⁹⁄₁₆"
2½" MIN
12" MAX
"L" DIM.
FL-10C
LEVEL

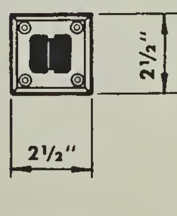
MOUNTING—A


FLANGE
FL-113
LEVEL
FL-113B
RAKE
3" MIN
OFF CENTER
⅛"
¾"

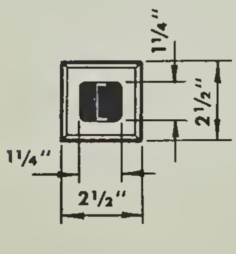
MOUNTING-B


FLANGE
FL-10 C B
RAKE
Y
X

RAKE POST PC-10



SECTION



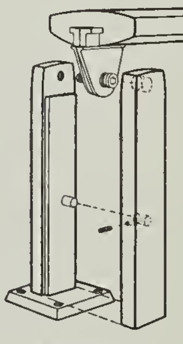
SECTION

POST SPACING — NOT TO EXCEED 4'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 4'-0" FOR LEVEL RAILING EXCEPT WHEN USING NO. 114 HANDRAIL MAXIMUM POST SPACING 2'-0".

RIGIDITY — THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

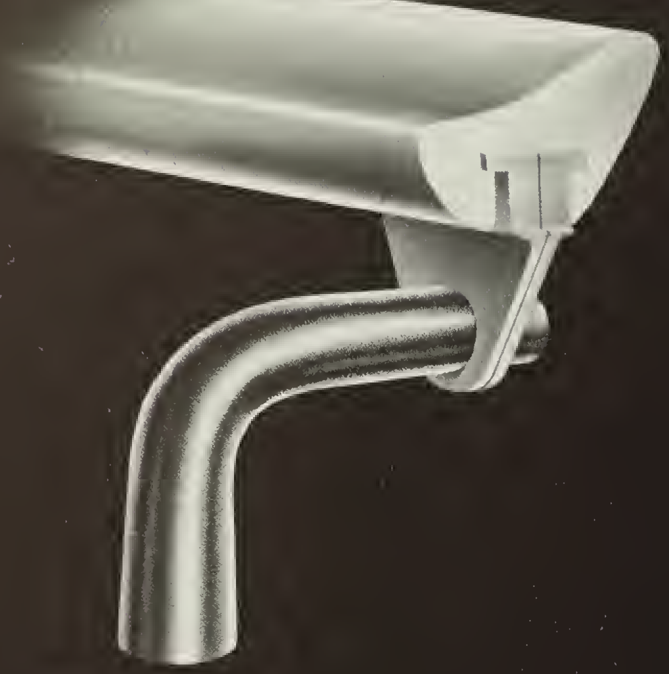
FABRICATION — LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

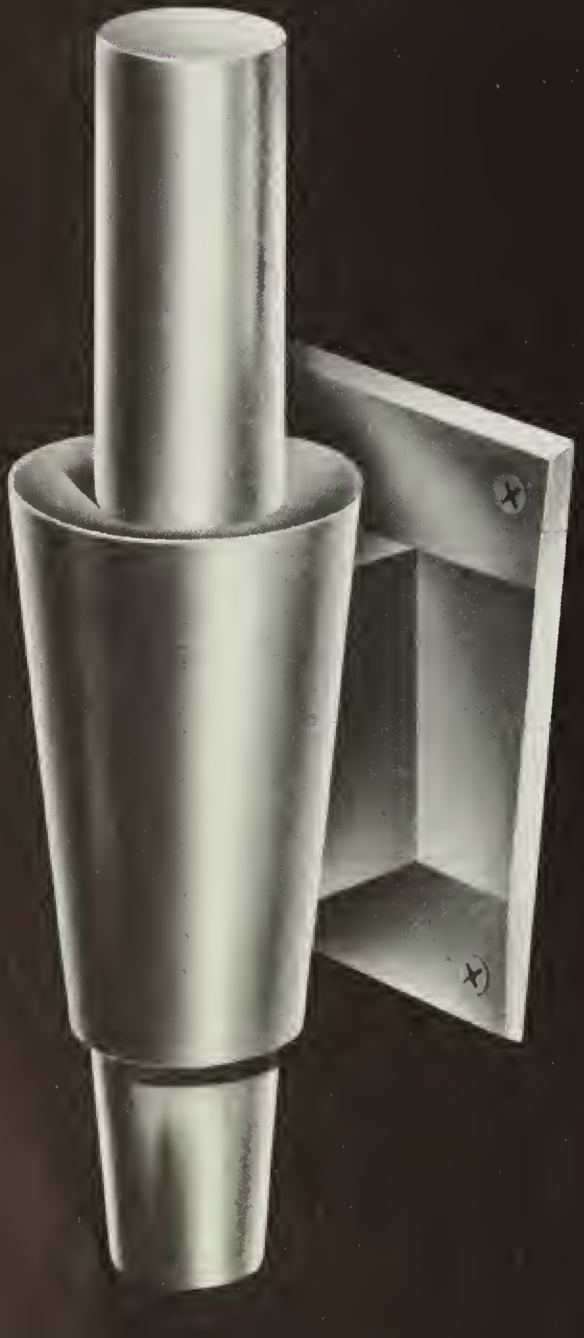
SERVICE TO ARCHITECT — OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.

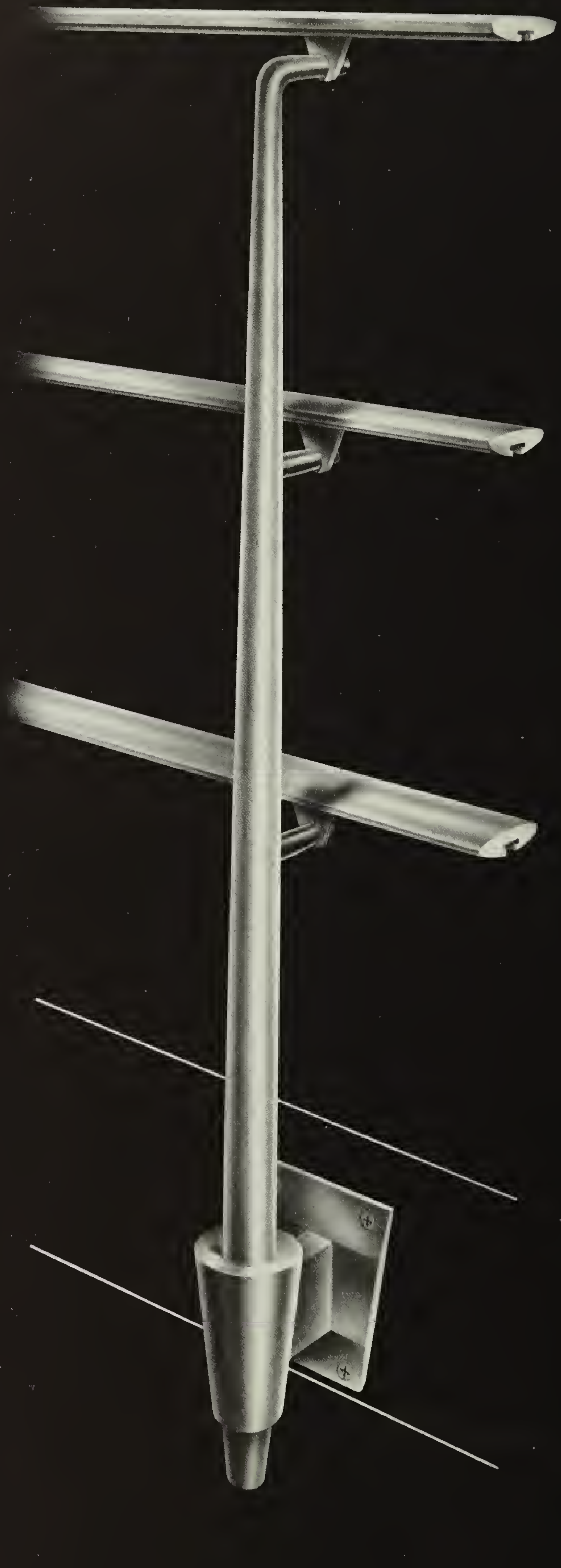


ASSEMBLY
POST PC-10

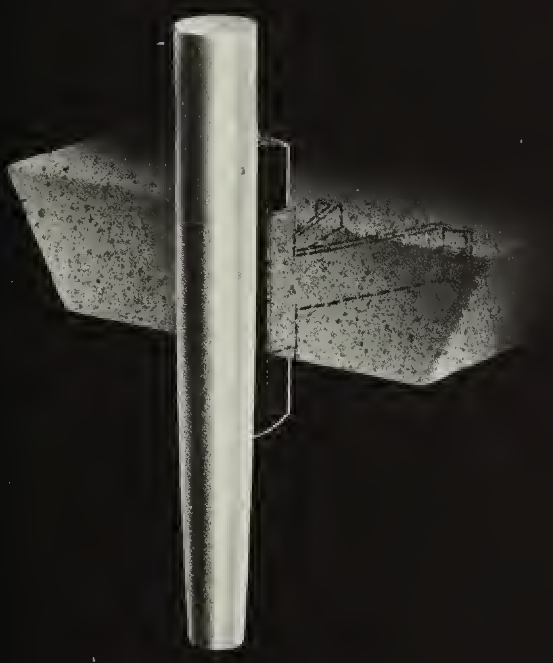
SCALE 1½" = 1'-0"

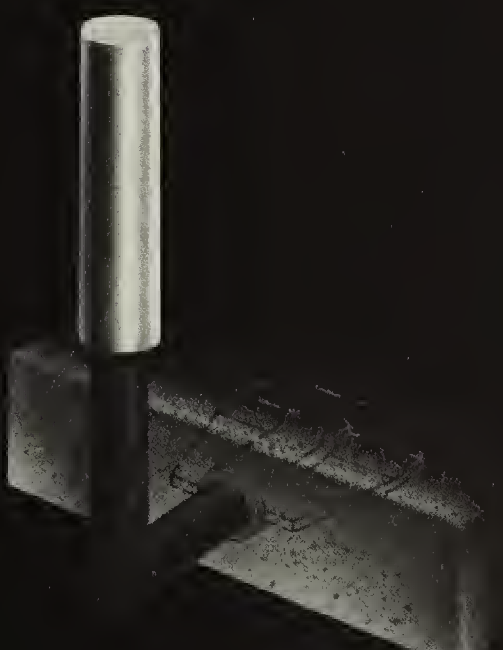






SUGGESTED APPLICATIONS





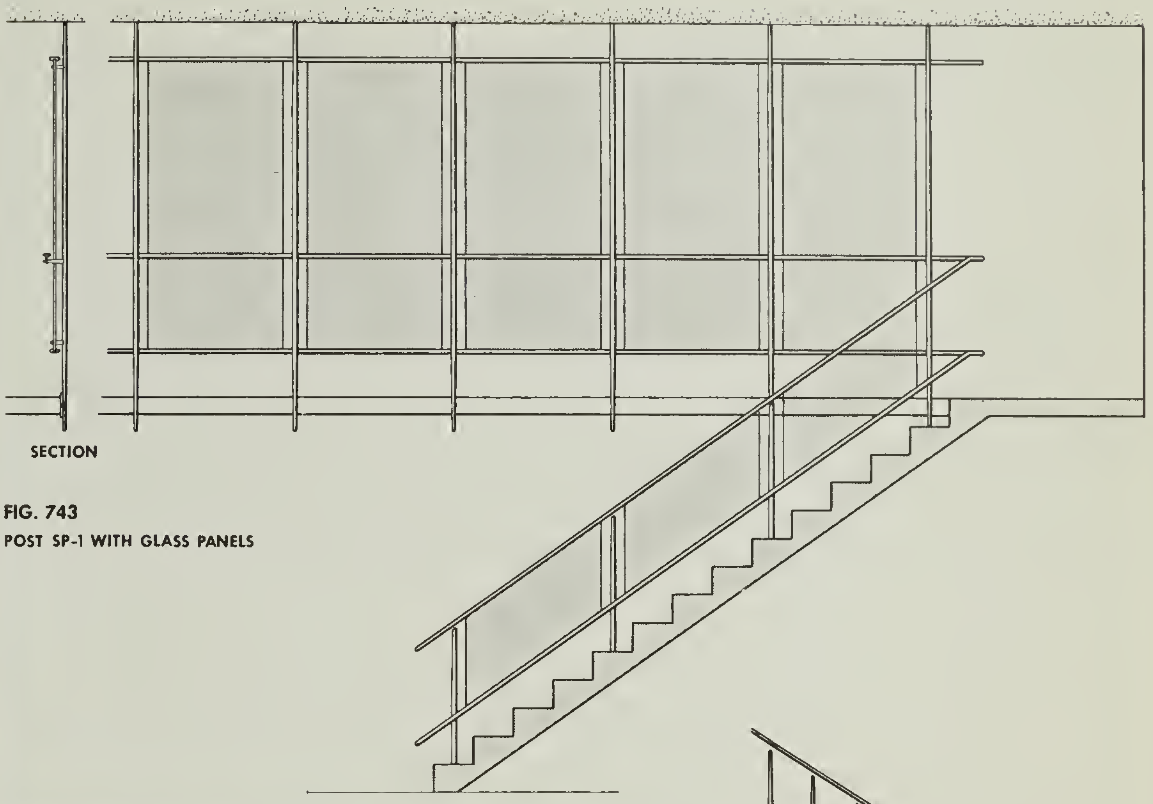


FIG. 743
POST SP-1 WITH GLASS PANELS

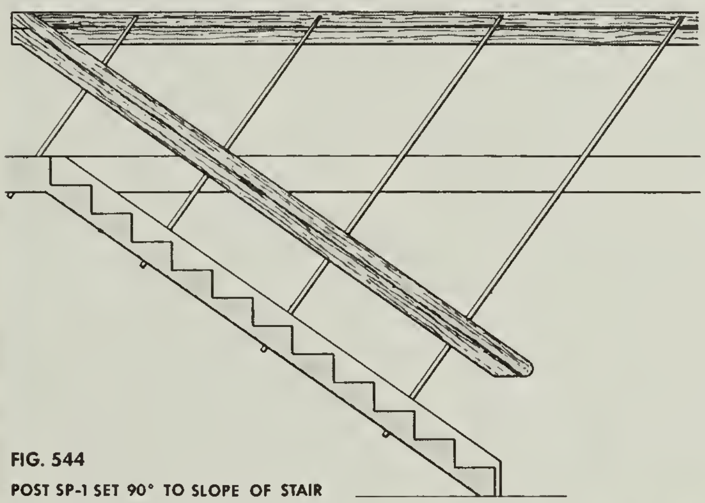


FIG. 544
POST SP-1 SET 90° TO SLOPE OF STAIR

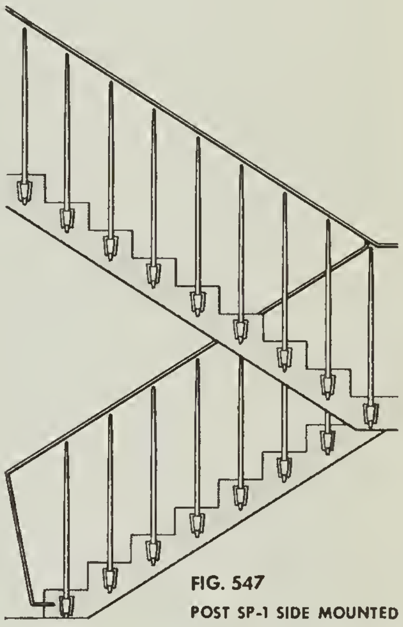


FIG. 547
POST SP-1 SIDE MOUNTED

DETAILS

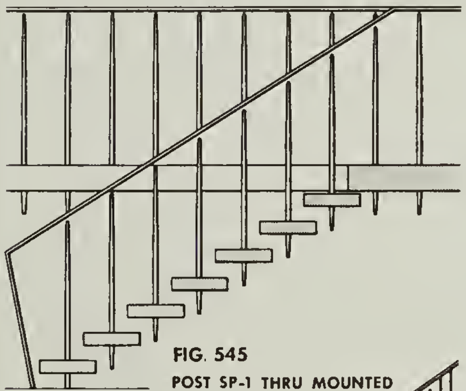


FIG. 545
POST SP-1 THRU MOUNTED

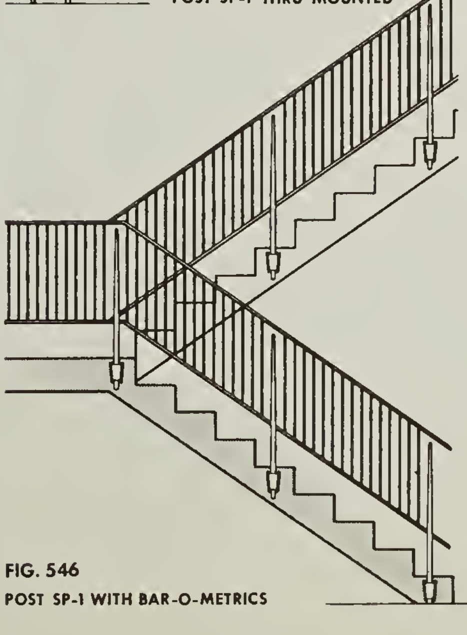


FIG. 546
POST SP-1 WITH BAR-O-METRICS

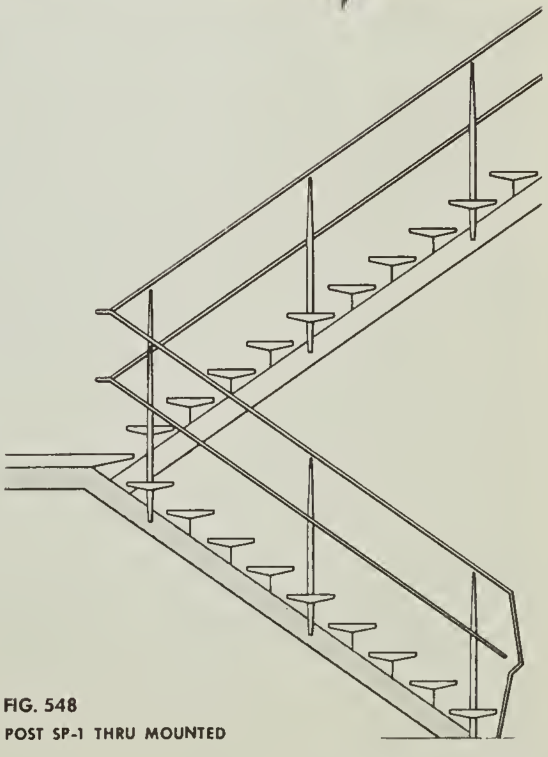
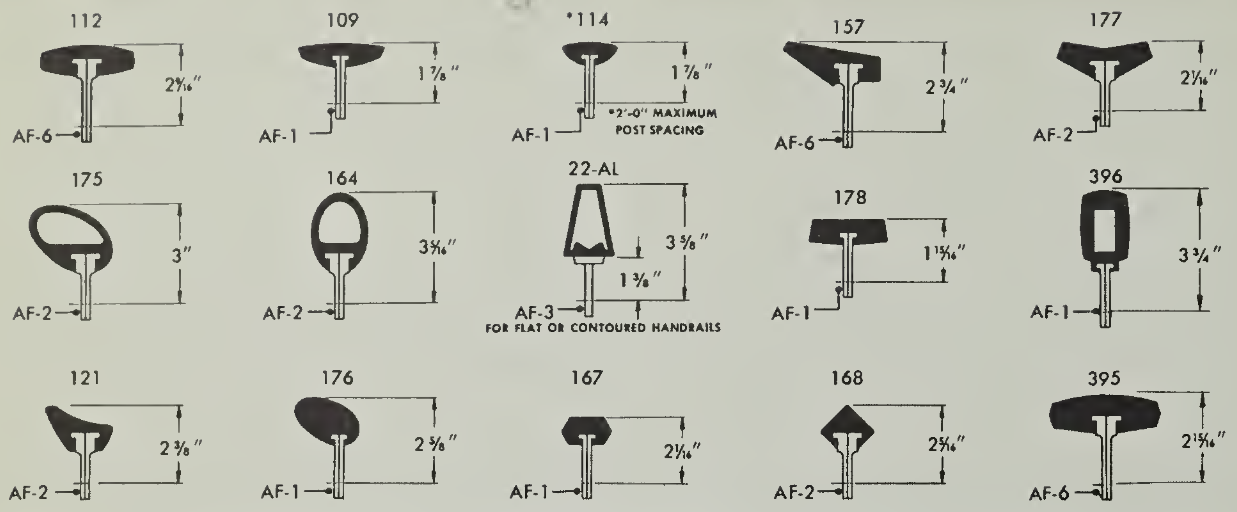
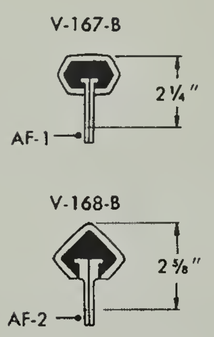


FIG. 548
POST SP-1 THRU MOUNTED

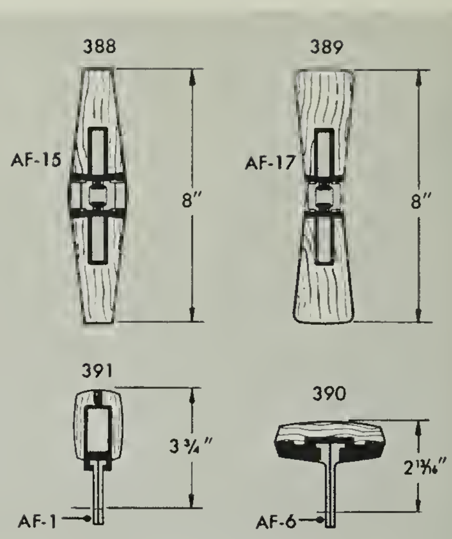

112
AF-6
2 9/16"
109
AF-1
1 7/8"
*114
AF-1
1 7/8"
*2'-0" MAXIMUM POST SPACING
157
AF-6
2 3/4"
177
AF-2
2 1/16"
175
AF-2
3"
164
AF-2
3 5/16"
22-AL
AF-3
3 5/8"
1 3/8"
FOR FLAT OR CONTOURED HANDRAILS
178
AF-1
1 15/16"
396
AF-1
3 3/4"
121
AF-2
2 3/8"
176
AF-1
2 5/8"
167
AF-1
2 1/16"
168
AF-2
2 5/16"
395
AF-6
2 15/16"

ALUMINUM RAILS

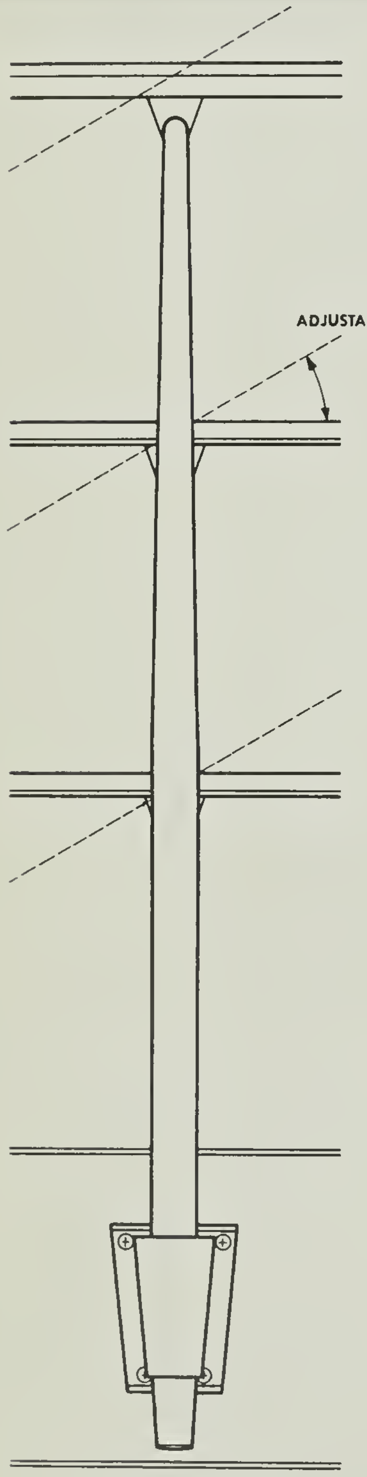
FULL SIZE SECTIONS
PAGES — 146-149


V-167-B
AF-1
2 1/4"
V-168-B
AF-2
2 5/8"

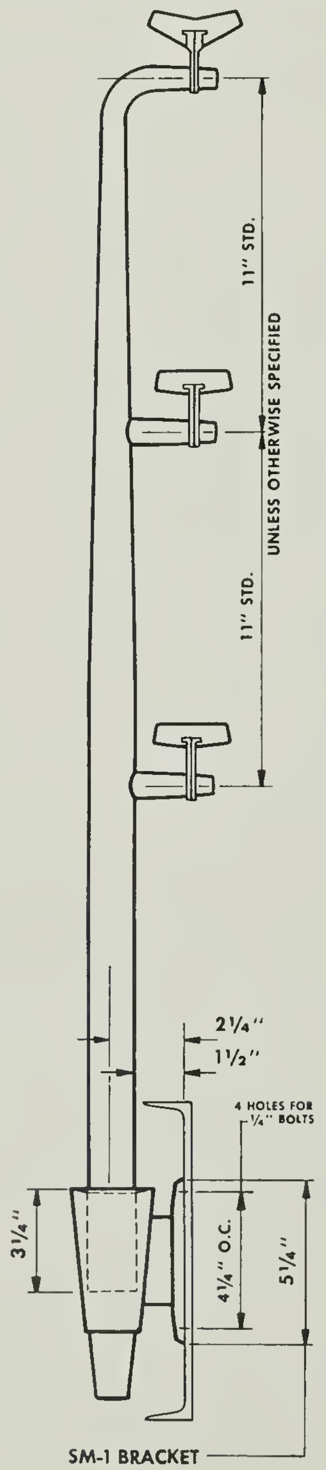
VINYL RAILS


388
AF-15
8"
389
AF-17
8"
391
AF-1
3 3/4"
390
AF-6
2 13/16"

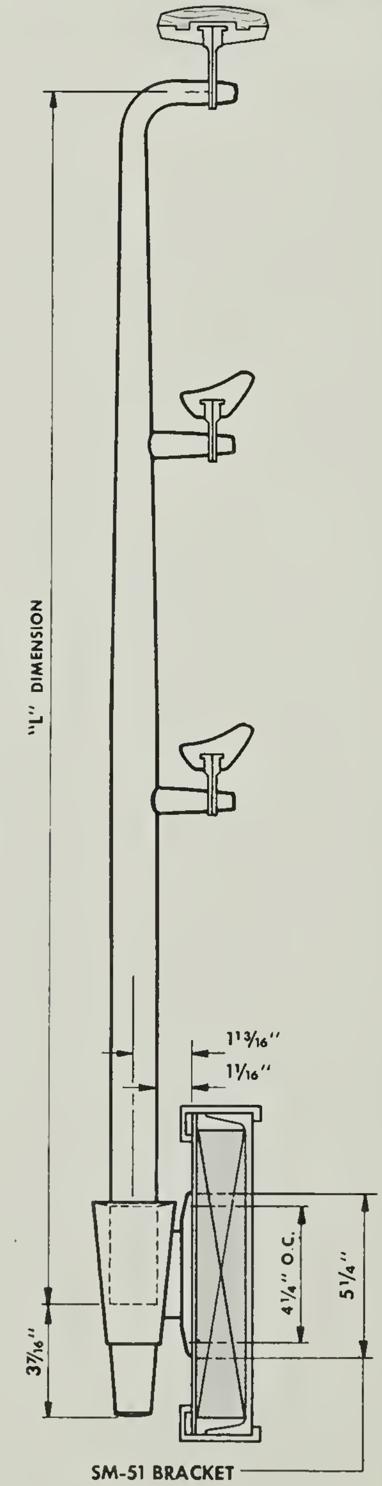
WOOD RAILS


ADJUSTABLE

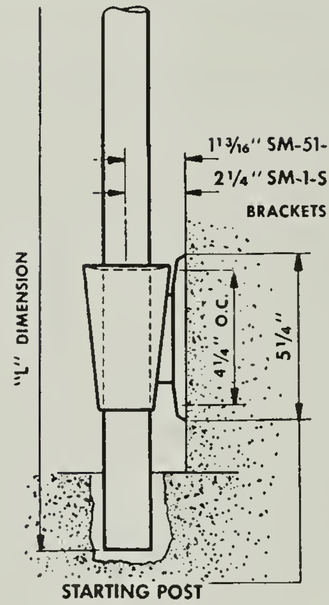
SIDE ELEVATION


11" STD.
UNLESS OTHERWISE SPECIFIED
11" STD.
2 1/4"
1 1/2"
4 HOLES FOR 1/4" BOLTS
3 1/4"
4 1/4" O.C.
5 1/4"

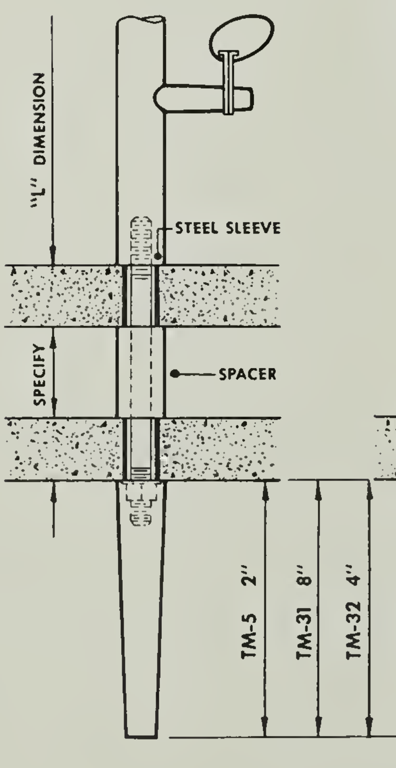
SM-1 BRACKET

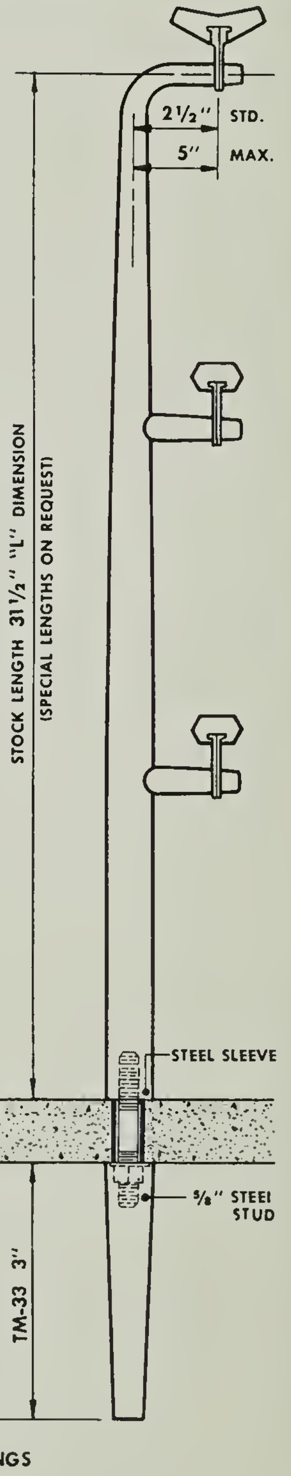

"L" DIMENSION
1 13/16"
1 1/16"
3 7/16"
4 1/4" O.C.
5 1/4"

SM-51 BRACKET


1 13/16" SM-51-S
2 1/4" SM-1-S
BRACKETS
"L" DIMENSION
4 1/4" O.C.
5 1/4"

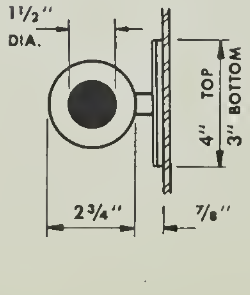
STARTING POST

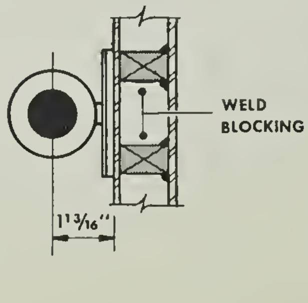

"L" DIMENSION
STEEL SLEEVE
SPECIFY
SPACER
TM-5 2"
TM-31 8"
TM-32 4"

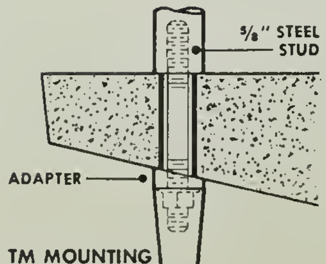

2 1/2" STD.
5" MAX.
STOCK LENGTH 31 1/2" "L" DIMENSION
(SPECIAL LENGTHS ON REQUEST)
STEEL SLEEVE
5/8" STEEL STUD
TM-33 3"

TM-MOUNTINGS

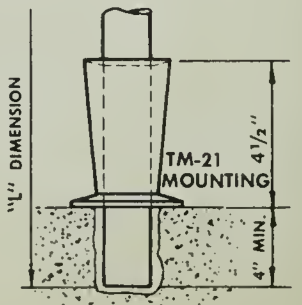
ALTERNATE MOUNTINGS
SCALE 1 1/2" = 1'-0"


1 1/2" DIA.
4" TOP
3" BOTTOM
2 3/4"
7/8"


WELD
BLOCKING
1 13/16"


5/8" STEEL STUD
ADAPTER

TM MOUNTING WITH ADAPTER


"L" DIMENSION
TM-21 MOUNTING
4 1/2"
4" MIN.

SECTION FULL SIZE

POST SPACING—NOT TO EXCEED 4'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 4'-0" FOR LEVEL RAILING EXCEPT WHEN USING NO. 114 HANDRAIL MAXIMUM POST SPACING 2'-0". REFER TO PAGE 150

STARTING POSTS—INCLUDING THOSE WITH SIDE MOUNTED BRACKETS, SHOULD EXTEND INTO FLOOR FOR ADDED RIGIDITY.

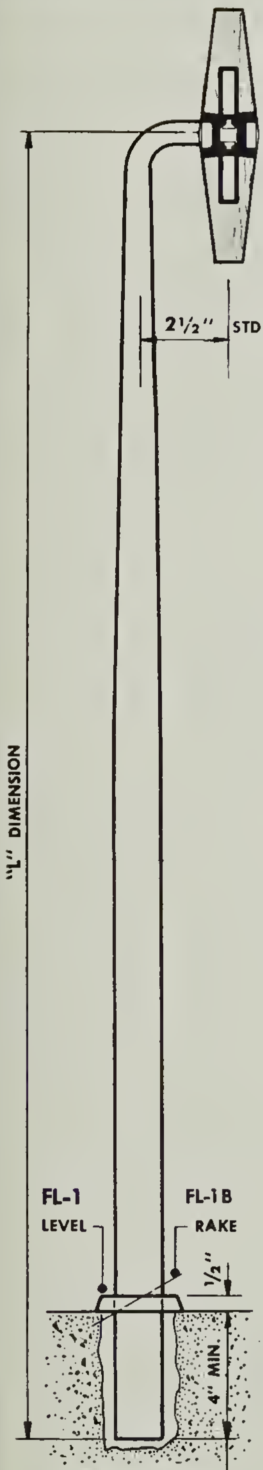
BOXED METAL STRINGERS—SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

CONCRETE STAIRS—USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE . . . ELIMINATES EXPANSION SHIELDS.

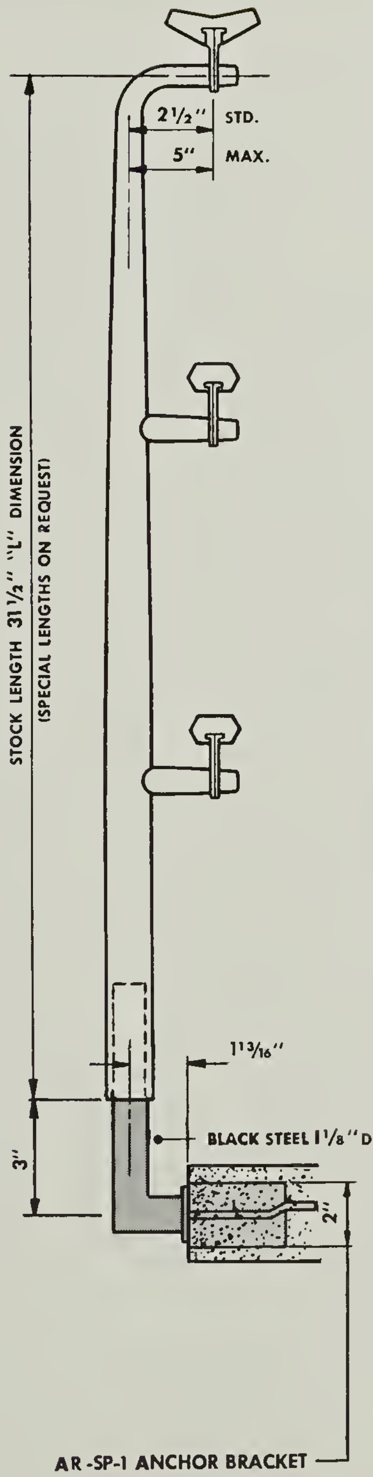
RIGIDITY—THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

FABRICATION—LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

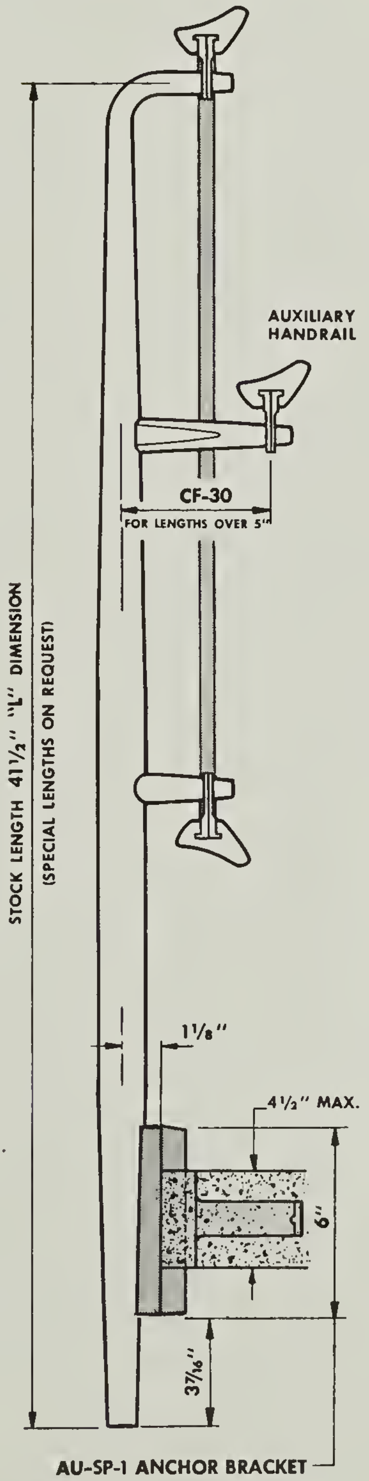
SERVICE TO ARCHITECT—OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.


"L" DIMENSION
2½" STD.
FL-1
LEVEL
FL-1B
RAKE
½"
4" MIN.

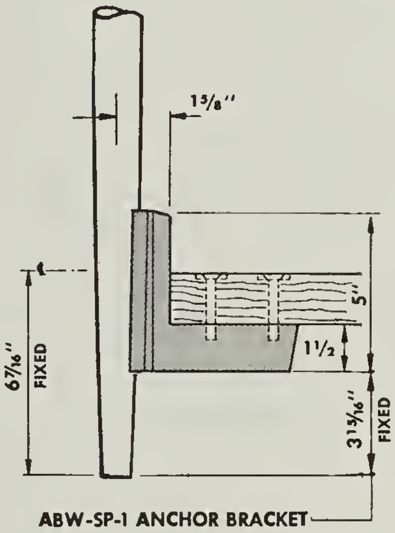
GROUTED POST


2½" STD.
5" MAX.
STOCK LENGTH 31½" "L" DIMENSION
(SPECIAL LENGTHS ON REQUEST)
1¹³⁄₁₆"
BLACK STEEL 1⅛" DIA.
3"
2"

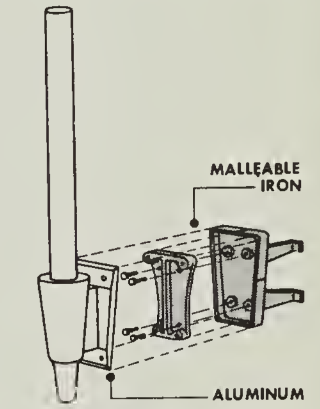
AR-SP-1 ANCHOR BRACKET


AUXILIARY HANDRAIL
CF-30
FOR LENGTHS OVER 5"
STOCK LENGTH 41½" "L" DIMENSION
(SPECIAL LENGTHS ON REQUEST)
1⅛"
4½" MAX.
6"
3⁷⁄₁₆"

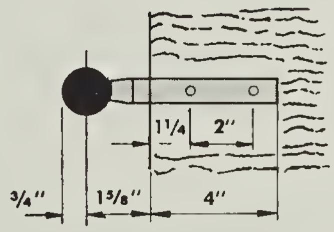
AU-SP-1 ANCHOR BRACKET


1⅝"
5"
1½
6⁷⁄₁₆" FIXED
3¹³⁄₁₆" FIXED

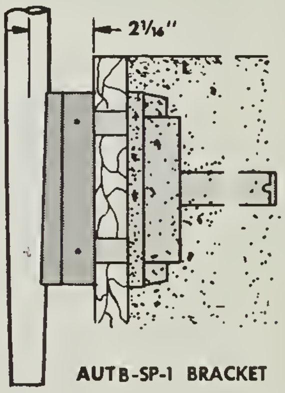
ABW-SP-1 ANCHOR BRACKET


MALLEABLE IRON
ALUMINUM

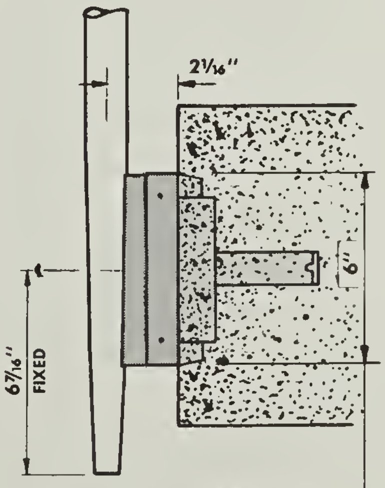
ASSEMBLY OF AZ-ANCHOR BRACKET



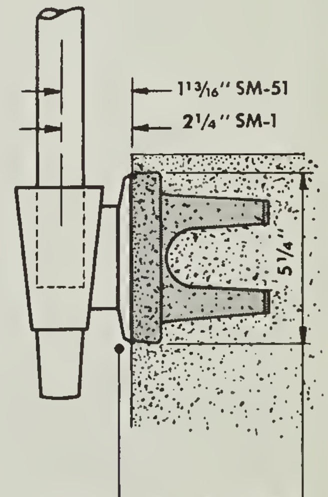
ABW-SP-1 ANCHOR BRACKET



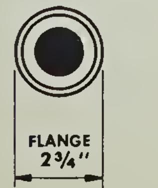
AUTB-SP-1 BRACKET

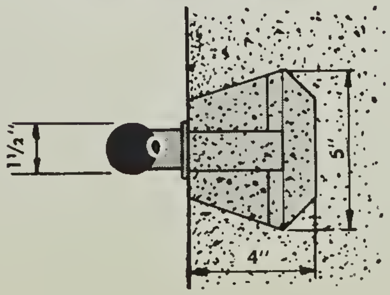

2¹⁄₁₆"
6"
6⁷⁄₁₆" FIXED

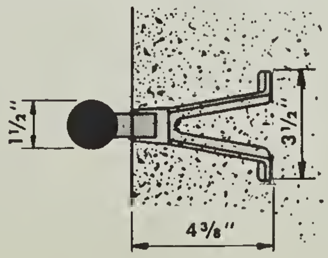
AUT-SP-1 ANCHOR BRACKET

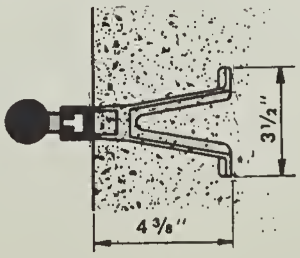

1¹³⁄₁₆" SM-51
2¼" SM-1
5¼"

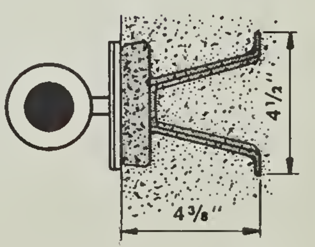
SM-1 AZ-1 ANCHOR

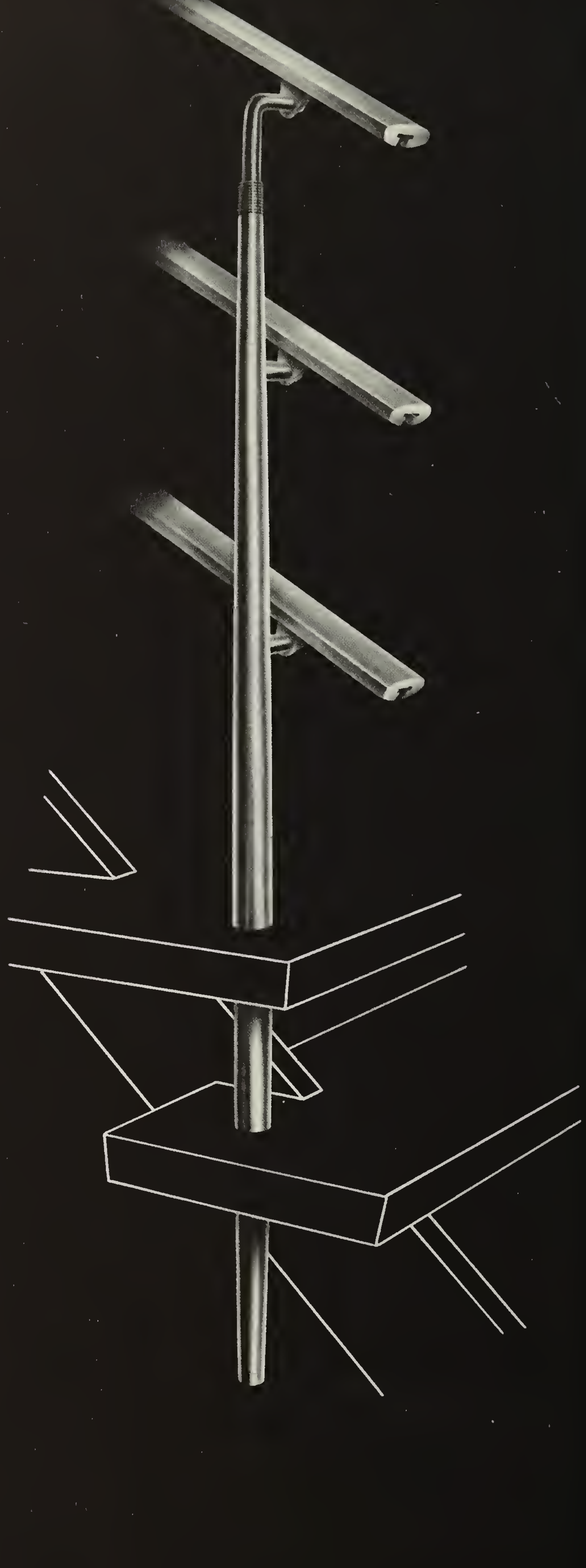


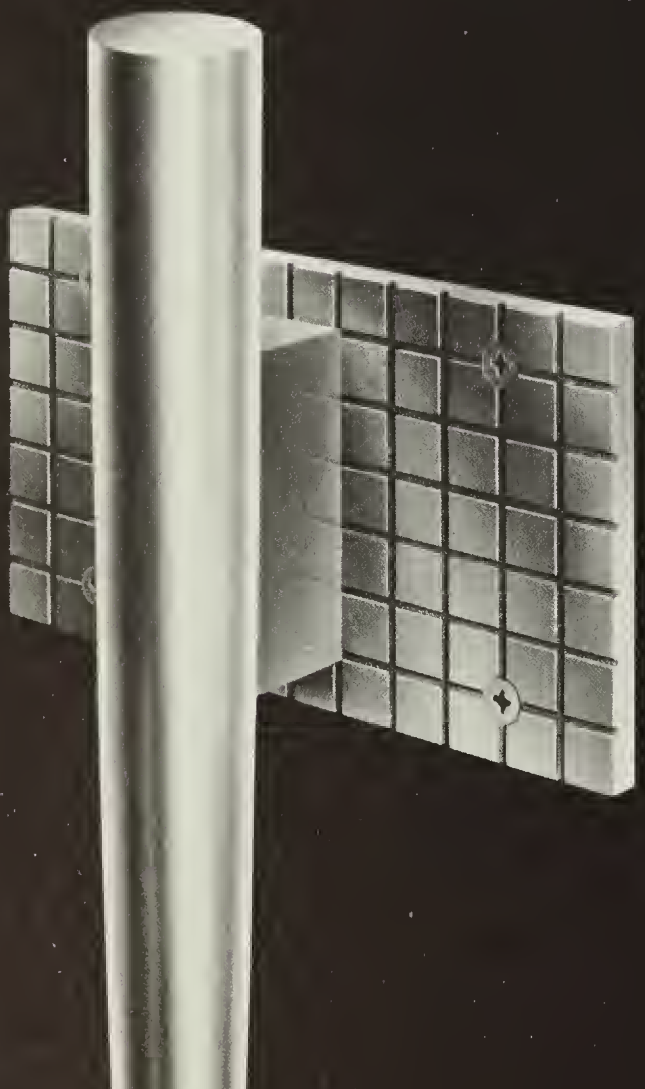








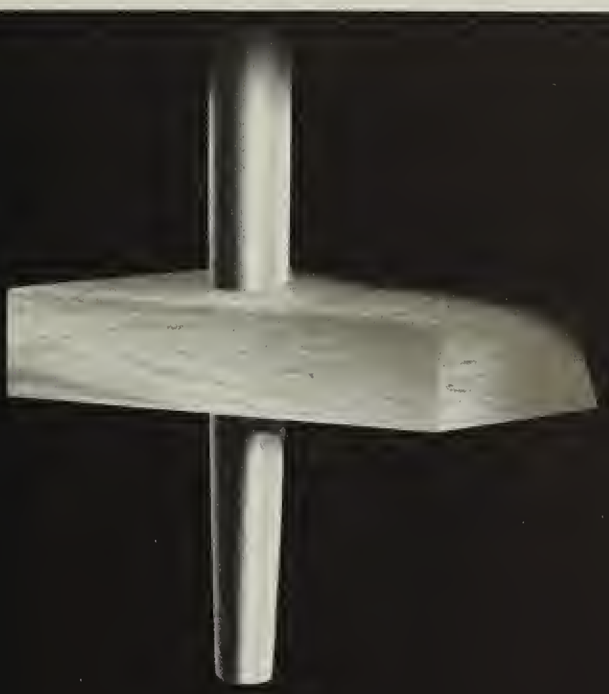


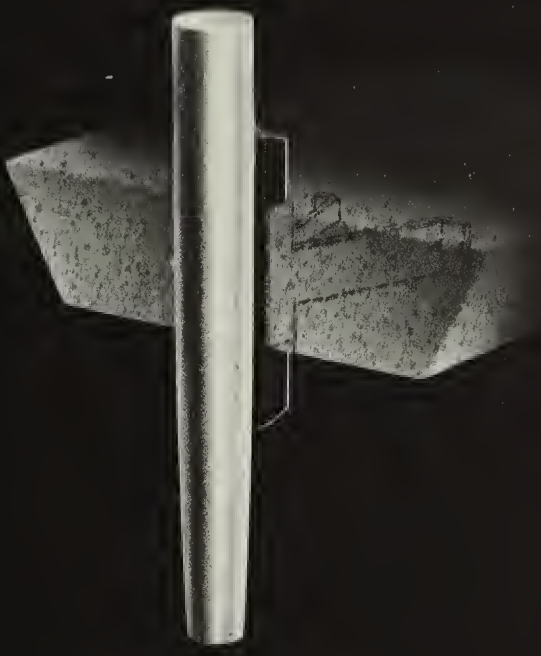


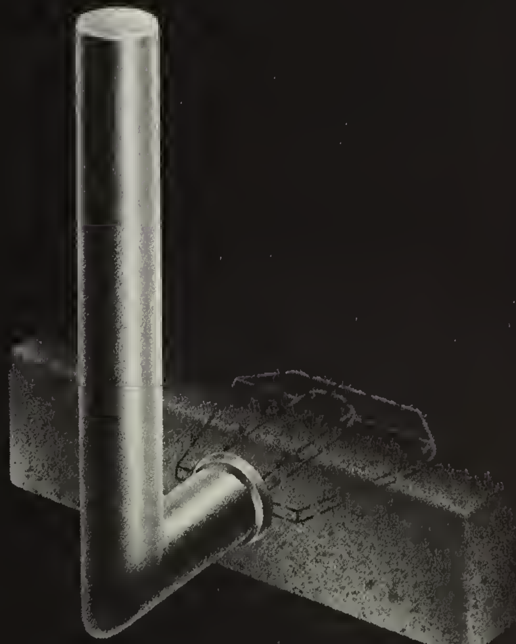
BLUMCRAFT'S ORIGINAL DESIGNS AND STRUCTURES ARE FULLY COVERED BY PATENTS AND PENDING PATENT APPLICATIONS IN THE UNITED STATES AND CANADA.

POST SP-11

SUGGESTED APPLICATIONS







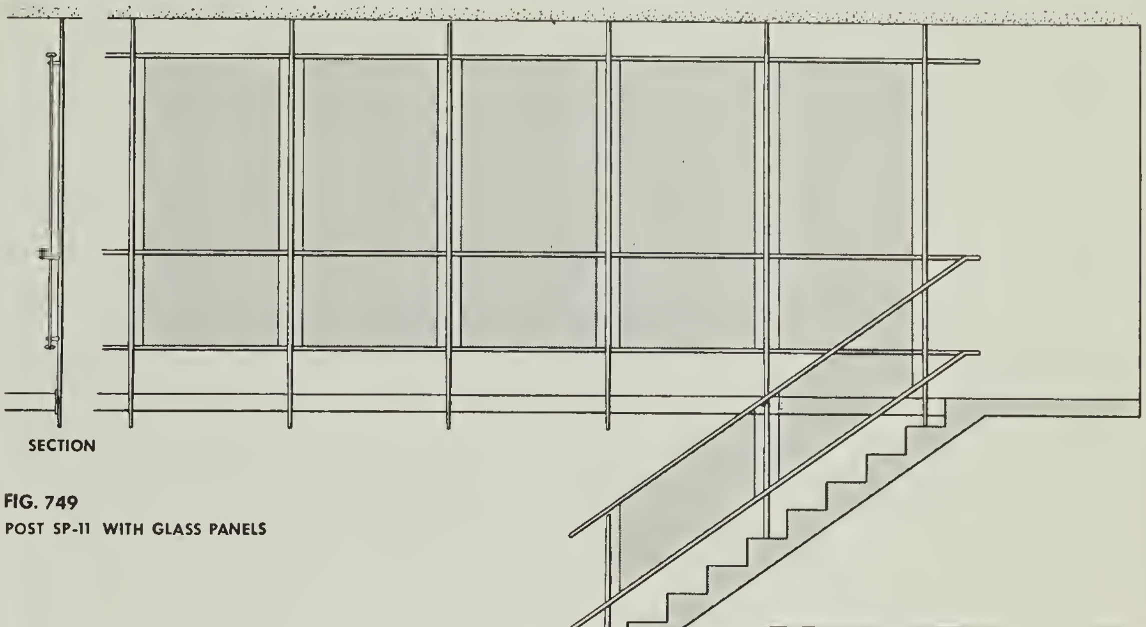


FIG. 749
POST SP-11 WITH GLASS PANELS

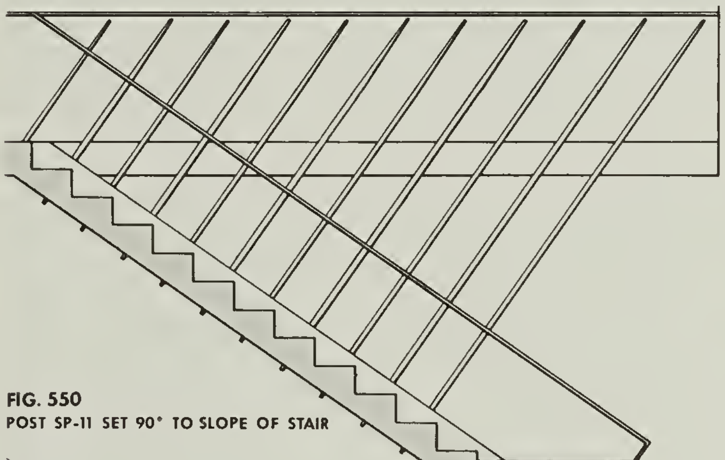


FIG. 550
POST SP-11 SET 90° TO SLOPE OF STAIR

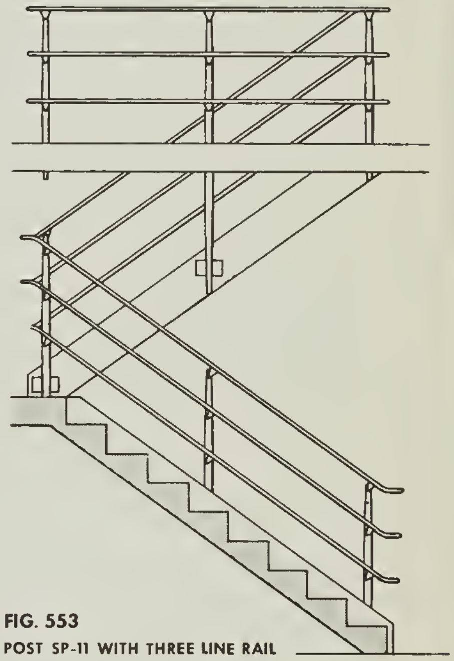


FIG. 553
POST SP-11 WITH THREE LINE RAIL

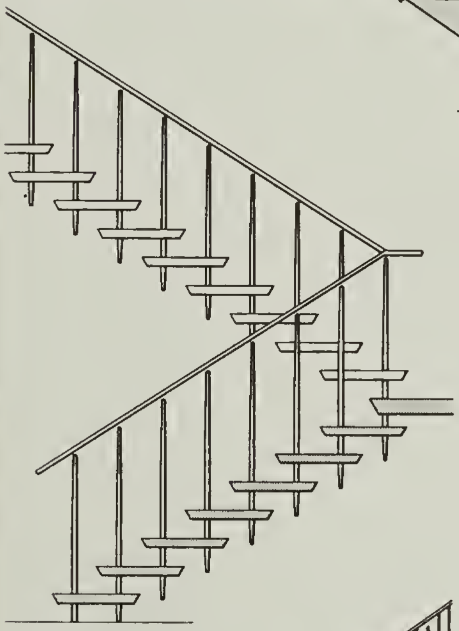


FIG. 551
POST SP-11 THRU MOUNTED

DETAILS

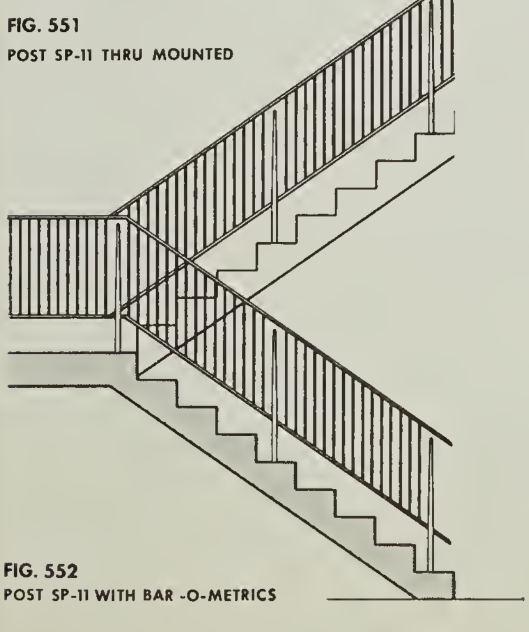


FIG. 552
POST SP-11 WITH BAR -O-METRICS

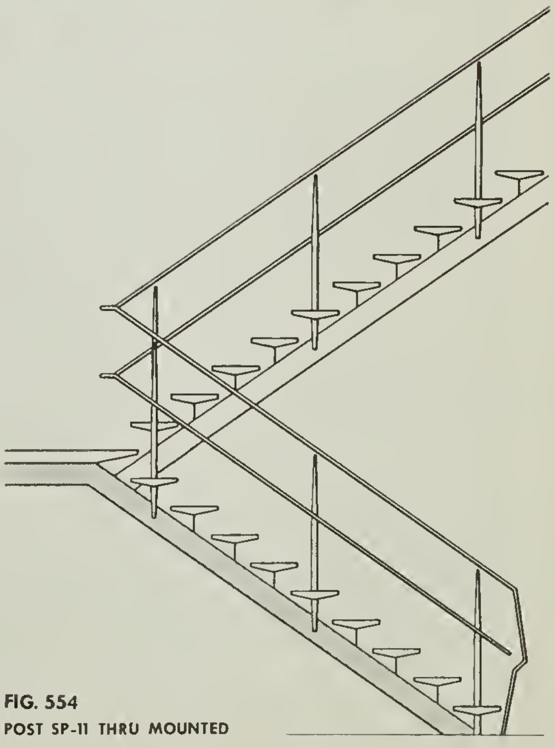
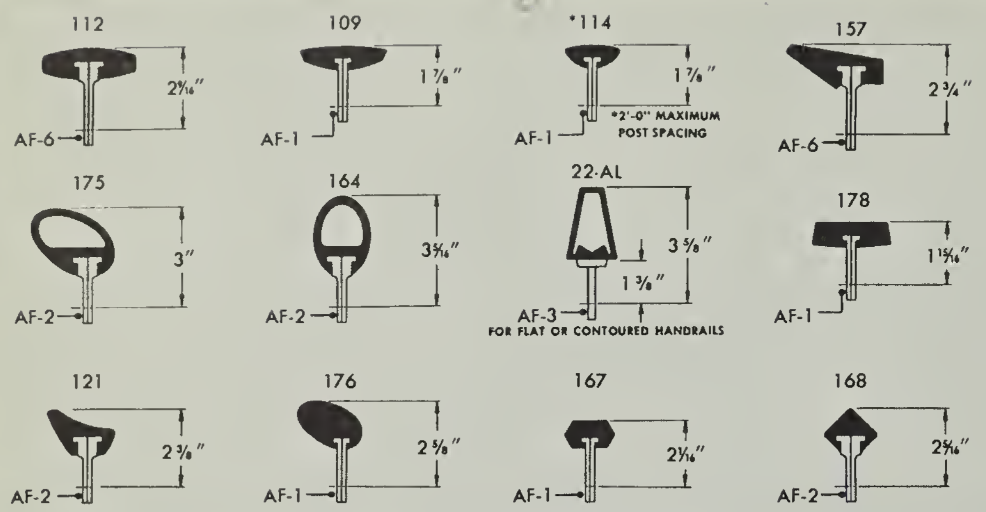
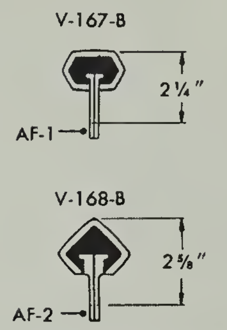


FIG. 554
POST SP-11 THRU MOUNTED

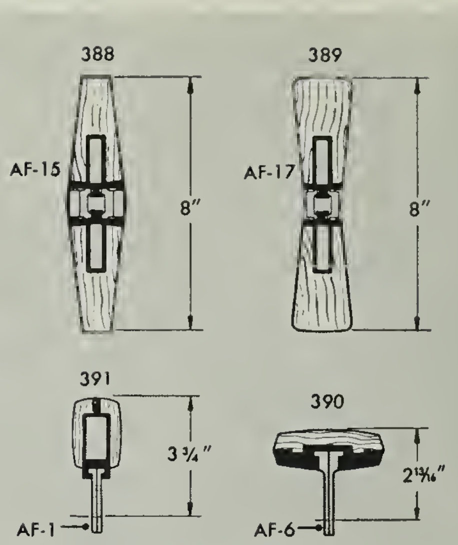

112
2⁹⁄₁₆"
AF-6
109
1⅞"
AF-1
*114
1⅞"
*2'-0" MAXIMUM POST SPACING
AF-1
157
2¾"
AF-6
177
2¹⁄₁₆"
AF-2
175
3"
AF-2
164
3⁵⁄₁₆"
AF-2
22-AL
3⅝"
1⅜"
AF-3
FOR FLAT OR CONTOURED HANDRAILS
178
1¹⁵⁄₁₆"
AF-1
396
3¾"
AF-1
121
2⅜"
AF-2
176
2⅝"
AF-1
167
2¹⁄₁₆"
AF-1
168
2⁵⁄₁₆"
AF-2
395
2¹³⁄₁₆"
AF-6

ALUMINUM RAILS

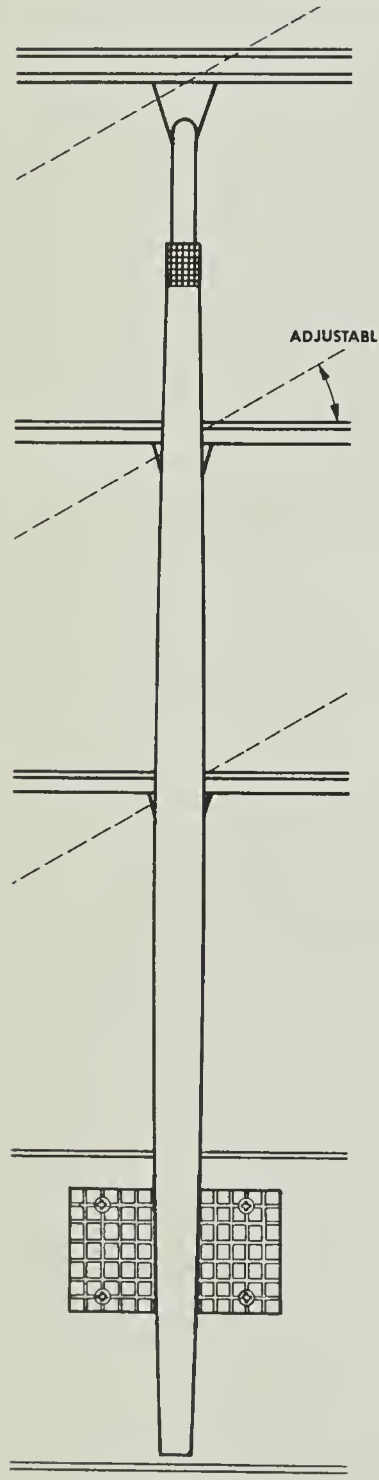
FULL SIZE SECTIONS PAGES — 146-149


V-167-B
2¼"
AF-1
V-168-B
2⅝"
AF-2

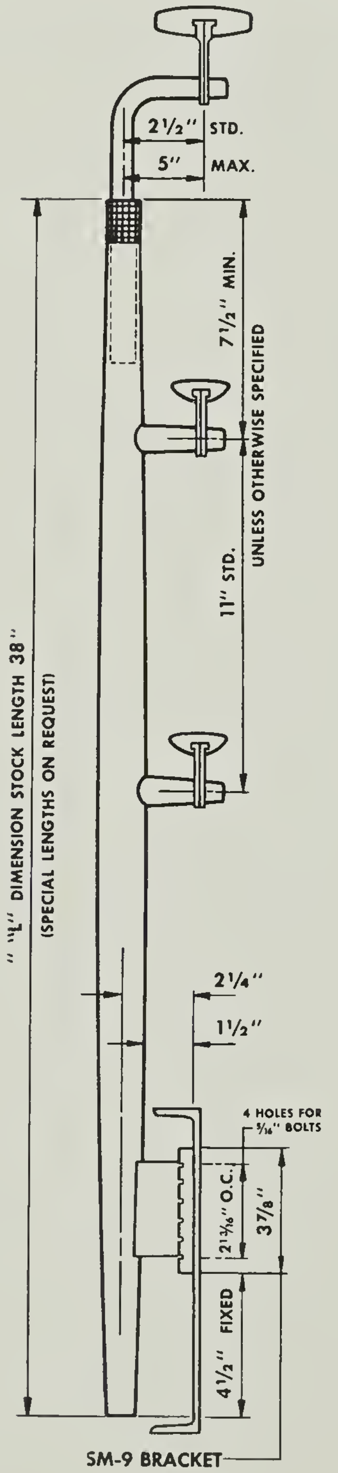
VINYL RAILS


388
AF-15
8"
389
AF-17
8"
391
3¾"
AF-1
390
2¹³⁄₁₆"
AF-6

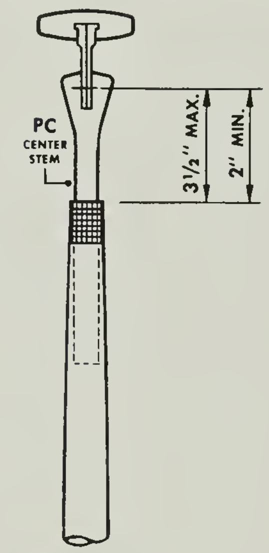
WOOD RAILS


ADJUSTABLE

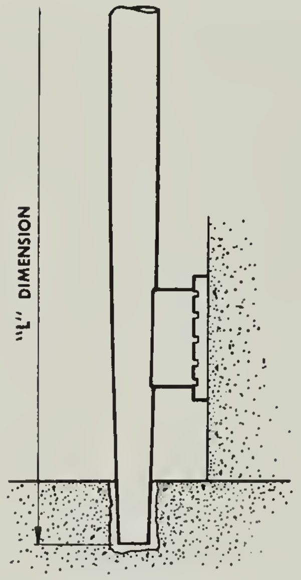
SIDE ELEVATION


2½" STD.
5" MAX.
7½" MIN.
11" STD.
UNLESS OTHERWISE SPECIFIED
"L" DIMENSION STOCK LENGTH 38"
(SPECIAL LENGTHS ON REQUEST)
2¼"
1½"
4 HOLES FOR ⁵⁄₁₆" BOLTS
2¹³⁄₁₆" O.C.
3⅞"
4½" FIXED

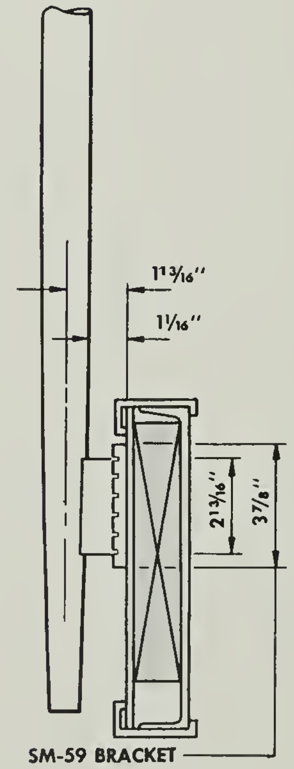
SM-9 BRACKET


PC
CENTER STEM
3½" MAX.
2" MIN.

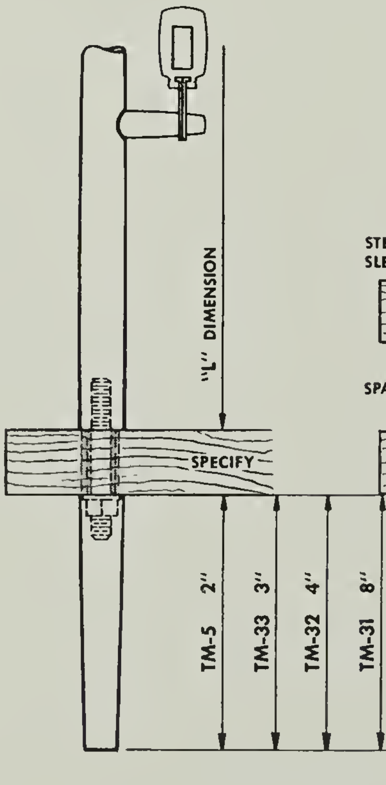
POST PC-SP-11

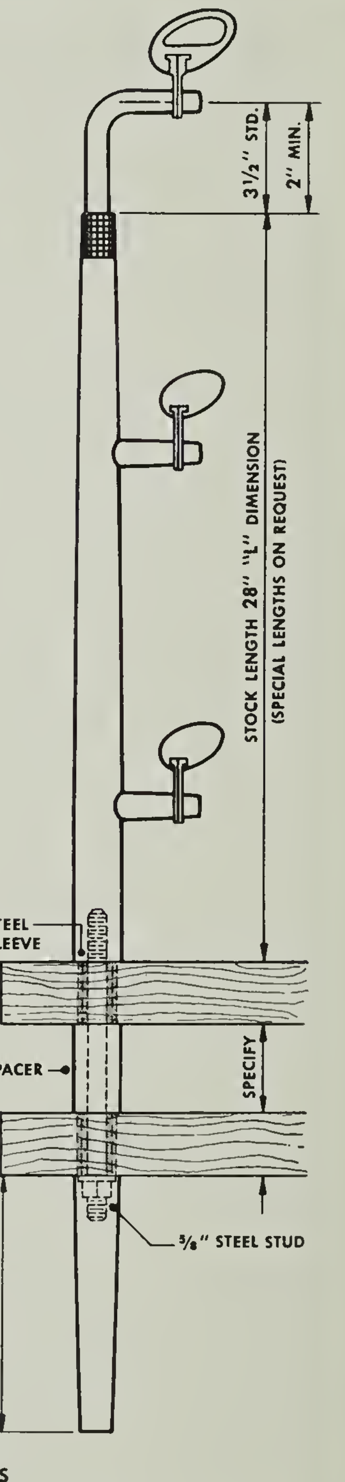

"L" DIMENSION

STARTING POST


1¹³⁄₁₆"
1¹⁄₁₆"
2¹³⁄₁₆"
3⅞"

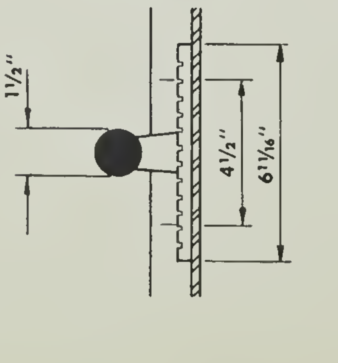
SM-59 BRACKET

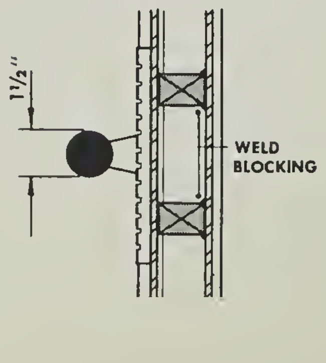

"L" DIMENSION
SPECIFY
TM-5 2"
TM-33 3"
TM-32 4"
TM-31 8"

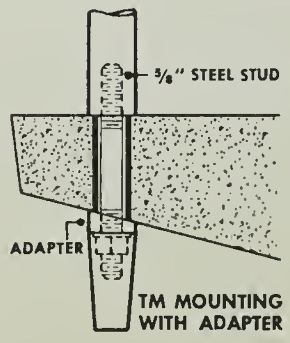

3½" STD.
2" MIN.
STOCK LENGTH 28" "L" DIMENSION
(SPECIAL LENGTHS ON REQUEST)
STEEL SLEEVE
SPACER
SPECIFY
⅝" STEEL STUD

TM-MOUNTINGS

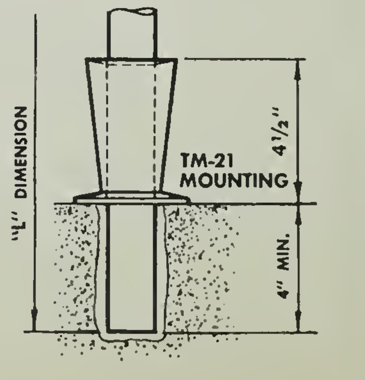
ALTERNATE MOUNTINGS
SCALE 1½" = 1'-0"



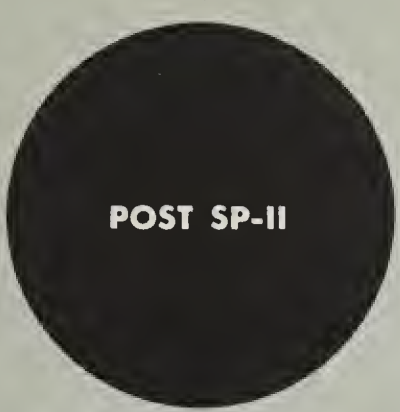

1½"
WELD BLOCKING


⅝" STEEL STUD
ADAPTER

TM MOUNTING WITH ADAPTER


"L" DIMENSION
4½"
4" MIN.

TM-21 MOUNTING



SECTION FULL SIZE

POST SPACING—NOT TO EXCEED 4'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 4'-0" FOR LEVEL RAILING. EXCEPT WHEN USING NO. 114 HANDRAIL MAXIMUM POST SPACING 2'-0". REFER TO PAGE 150

STARTING POSTS—INCLUDING THOSE WITH SIDE MOUNTED BRACKETS, SHOULD EXTEND INTO FLOOR FOR ADDED RIGIDITY.

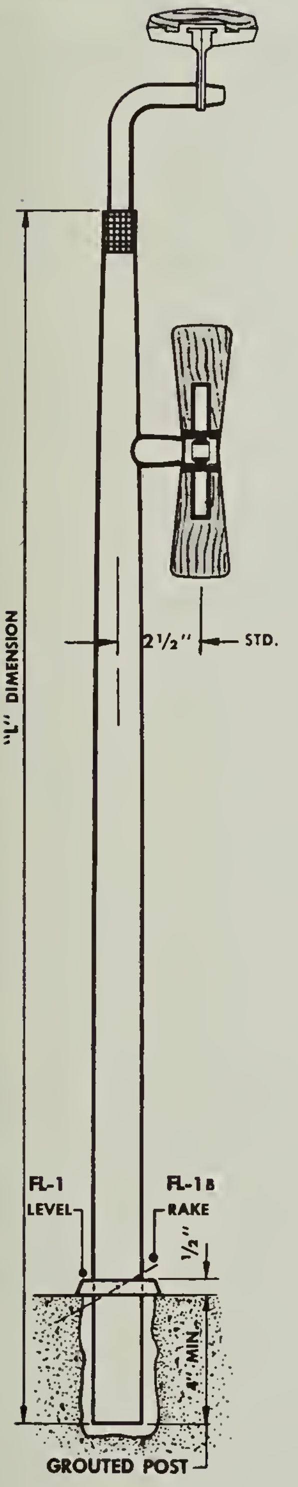
BOXED METAL STRINGERS—SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

CONCRETE STAIRS—USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE . . . ELIMINATES EXPANSION SHIELDS.

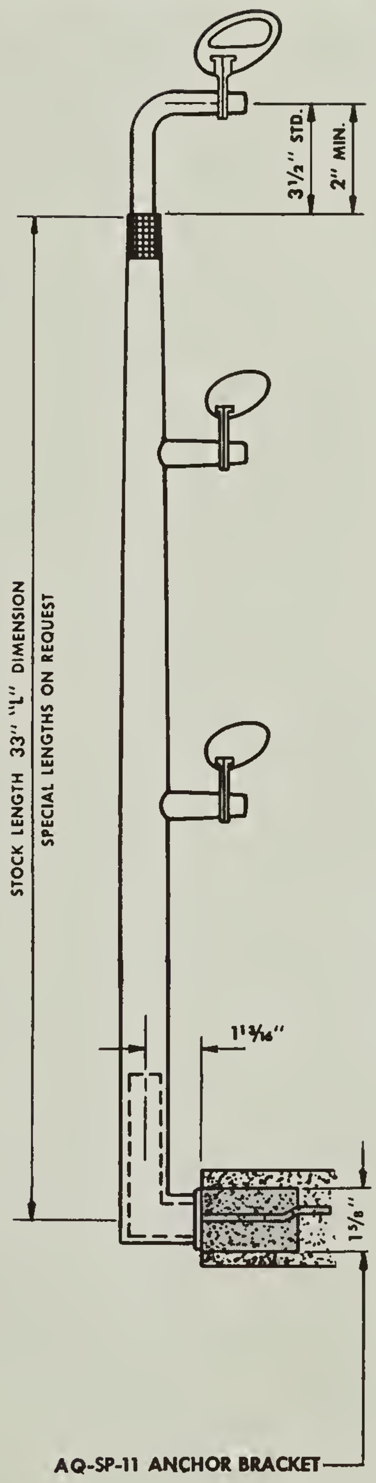
RIGIDITY—THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

FABRICATION—LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

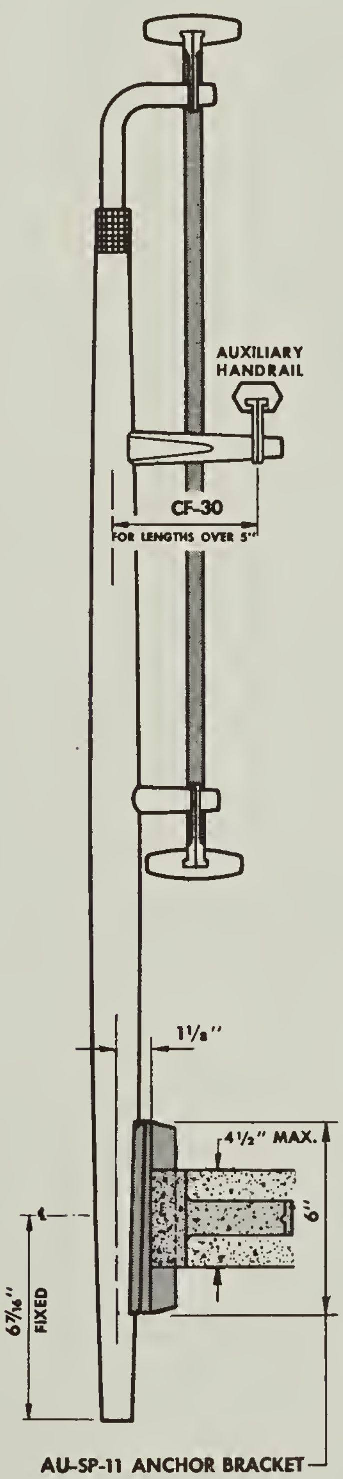
SERVICE TO ARCHITECT—OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.


"L" DIMENSION
2½" STD.
FL-1 LEVEL
FL-1B RAKE
½"
4" MIN.

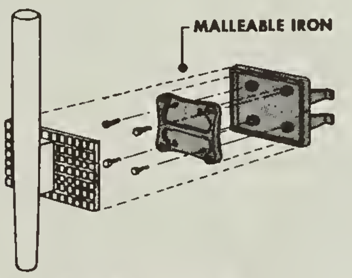
GROUTED POST


3½" STD.
2" MIN.
STOCK LENGTH 33" "L" DIMENSION
SPECIAL LENGTHS ON REQUEST
1¹³⁄₁₆"
1⅝"

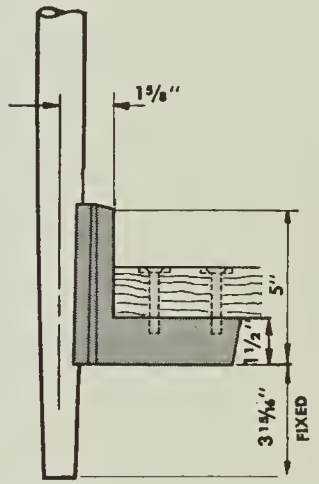
AQ-SP-11 ANCHOR BRACKET


AUXILIARY HANDRAIL
CF-30
FOR LENGTHS OVER 5"
1⅛"
4½" MAX.
6"
6⁷⁄₁₆" FIXED

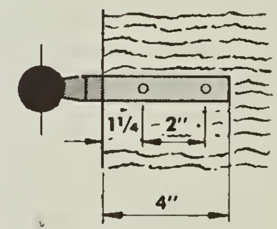
AU-SP-11 ANCHOR BRACKET

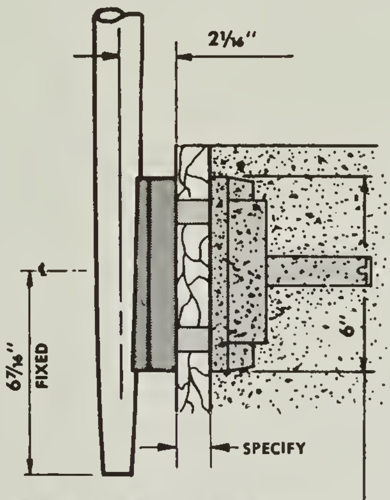

MALLEABLE IRON

ASSEMBLY OF AZ-ANCHOR BRACKET

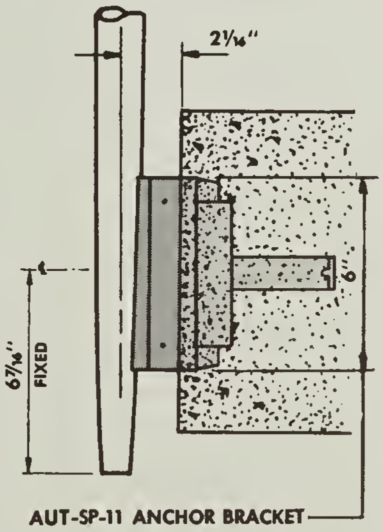

1⅝"
5"
1½"
3¹⁵⁄₁₆" FIXED

ABW-SP-11 ANCHOR BRACKET

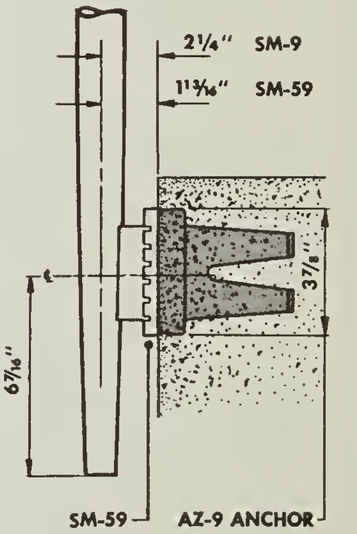



2¹⁄₁₆"
6"
6⁷⁄₁₆" FIXED
SPECIFY

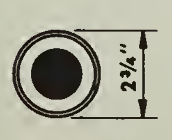
AUT B-SP-11 ANCHOR BRACKET


2¹⁄₁₆"
6"
6⁷⁄₁₆" FIXED

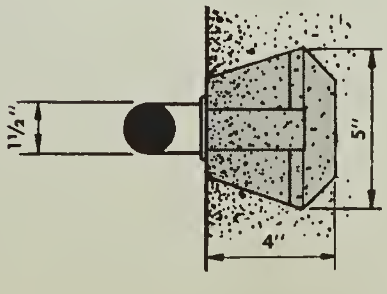
AUT-SP-11 ANCHOR BRACKET

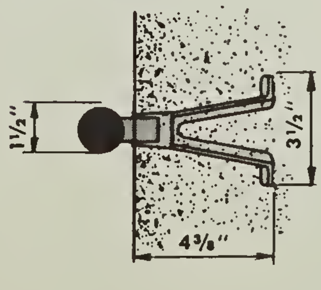

2¼" SM-9
1¹³⁄₁₆" SM-59
3⅞"
6⁷⁄₁₆"

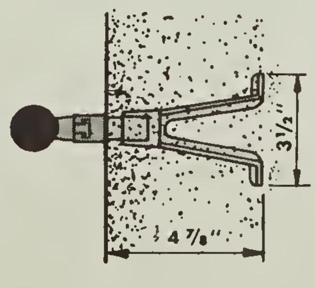
SM-59 AZ-9 ANCHOR

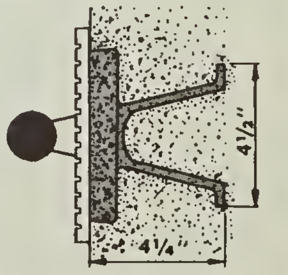


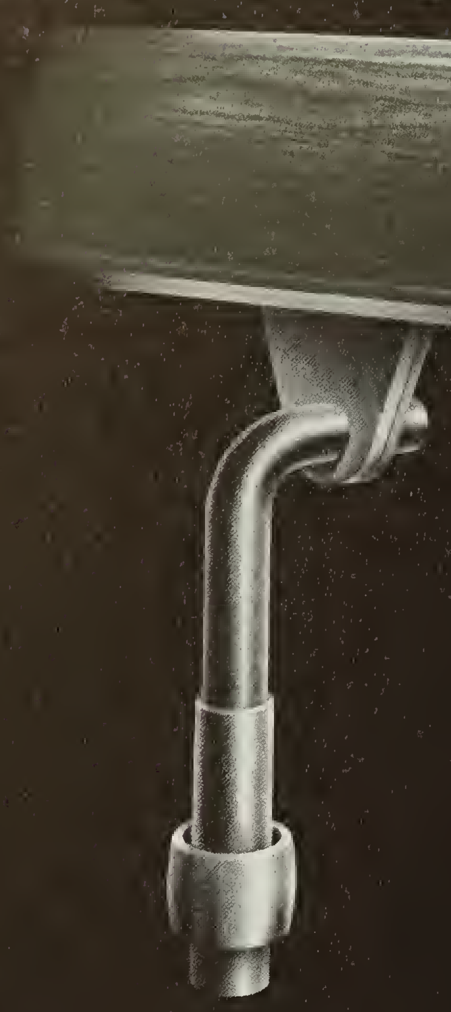
FL-1 FLANGE

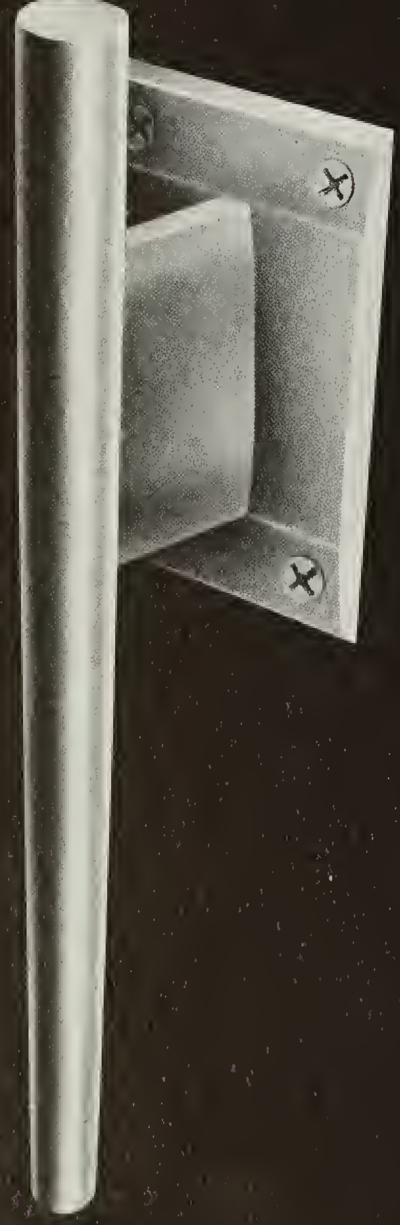


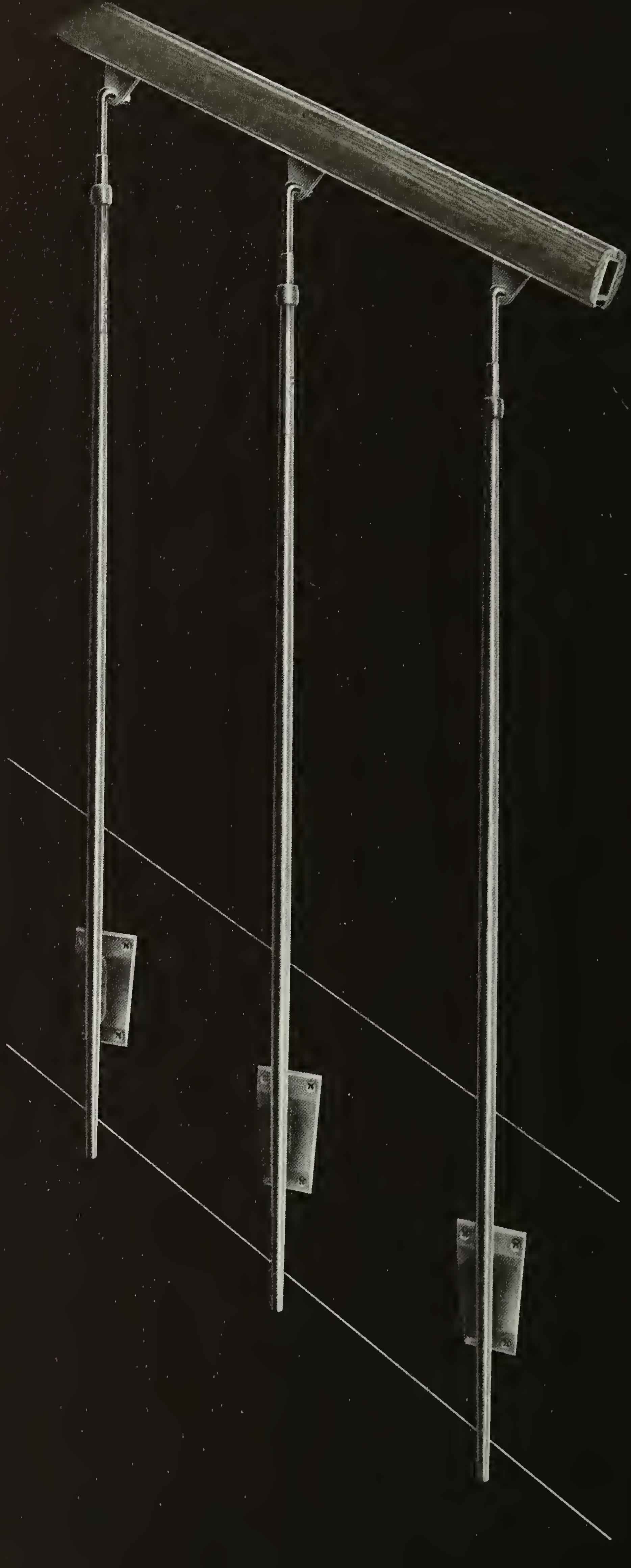








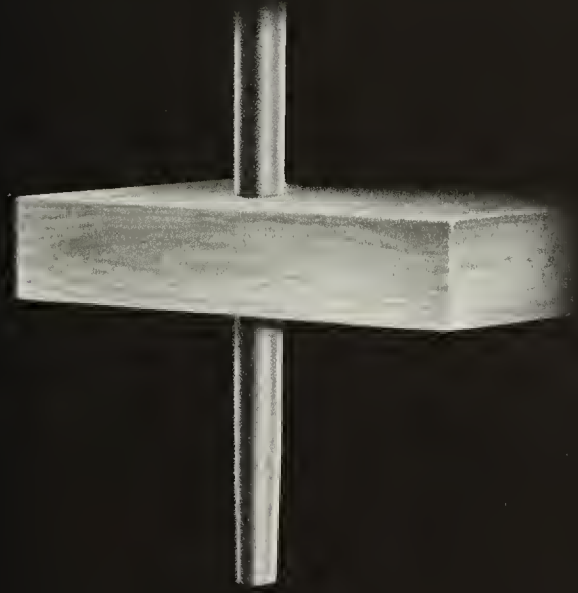


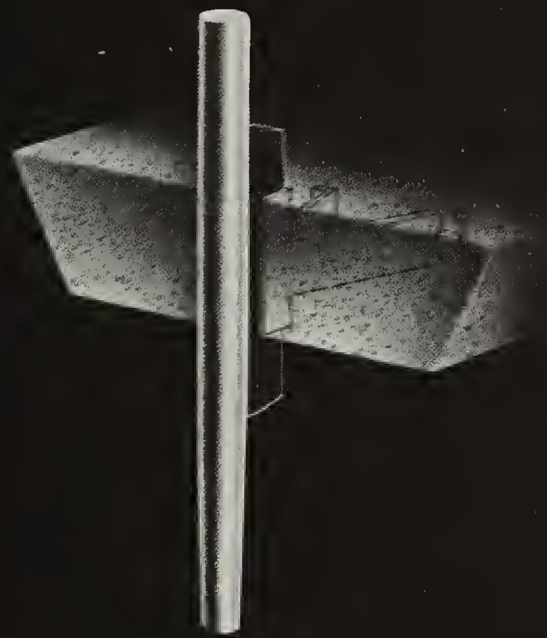


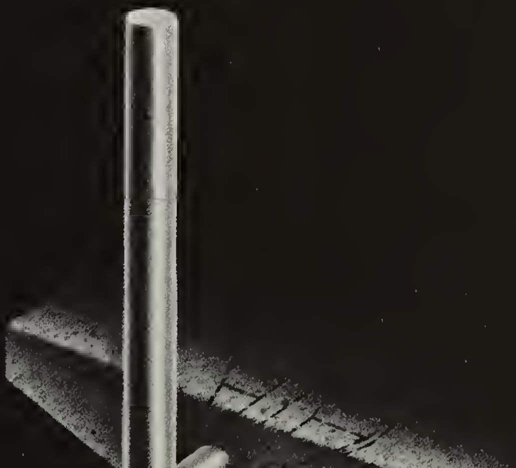
BLUMCRAFT'S ORIGINAL DESIGNS AND STRUCTURES ARE FULLY COVERED BY PATENTS AND PENDING PATENT APPLICATIONS IN THE UNITED STATES AND CANADA.

BALUSTER SP-2 Blu

DELUXE-LINE







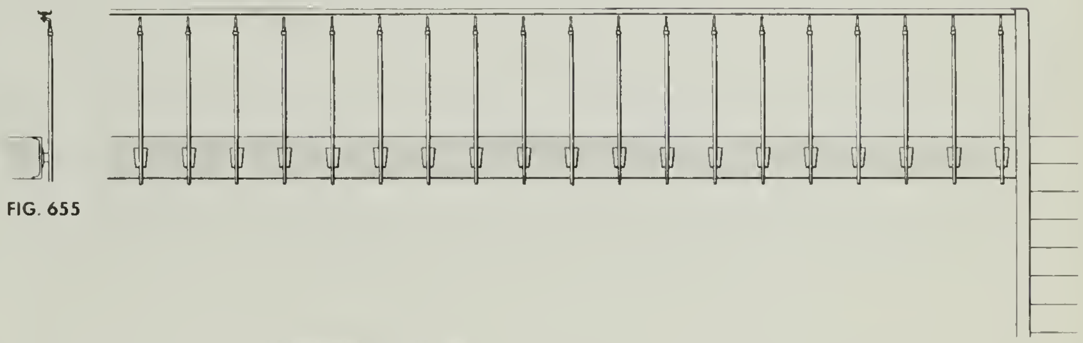


FIG. 655

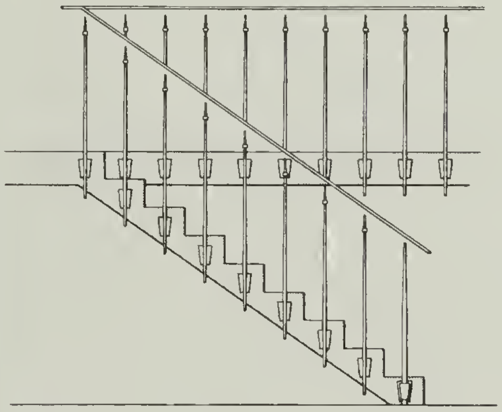


FIG. 573

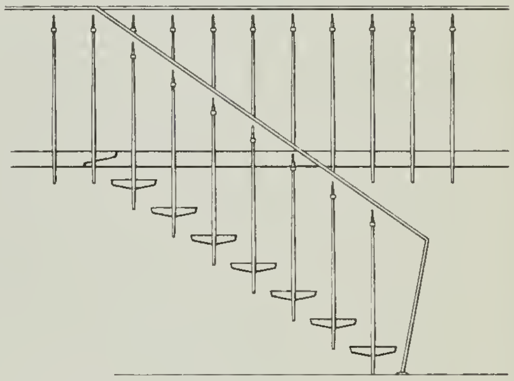


FIG. 571

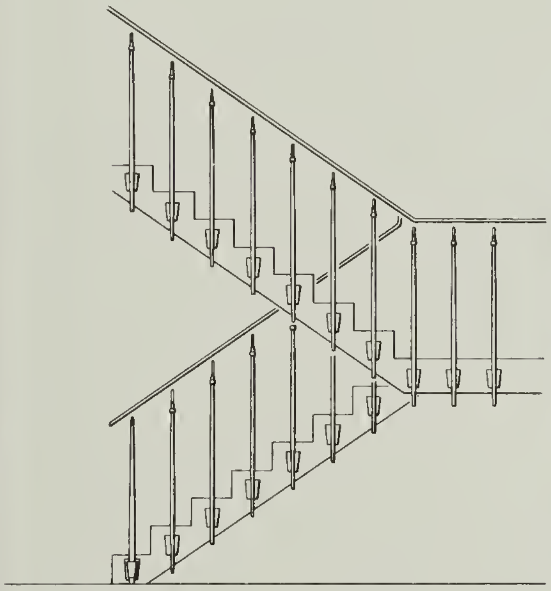


FIG. 656

DETAILS

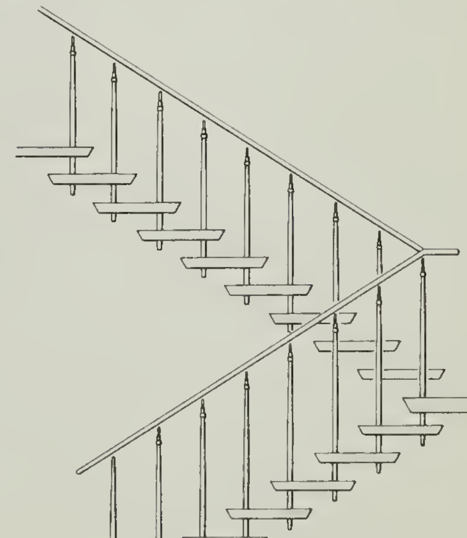


FIG. 658

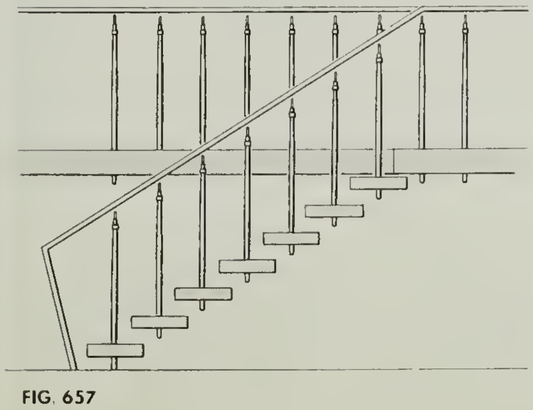
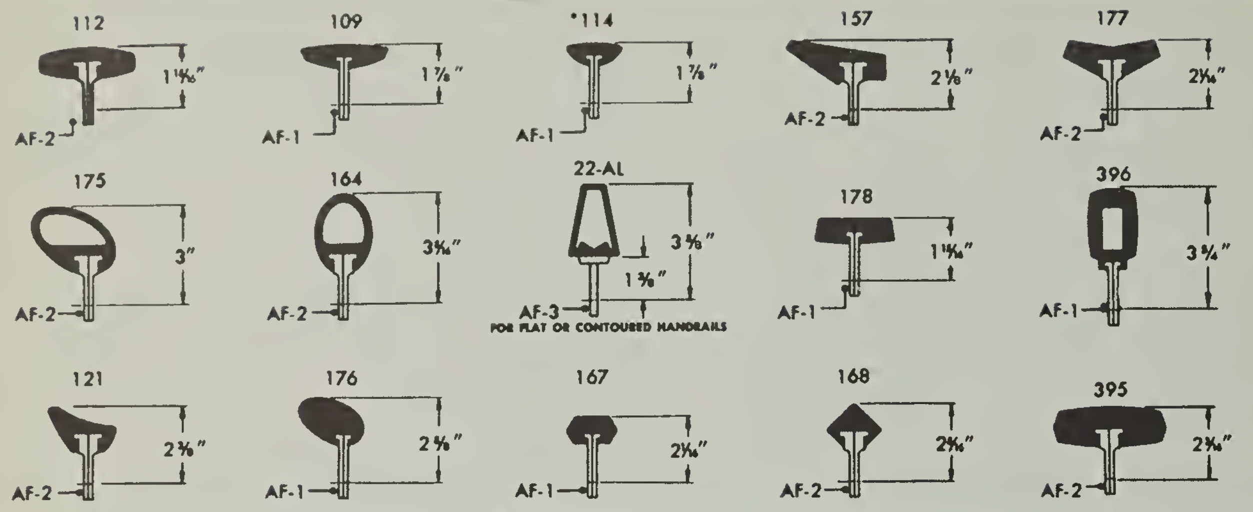
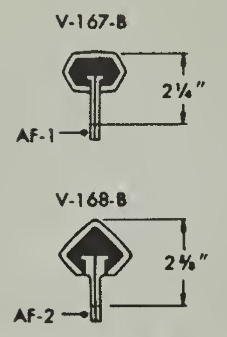


FIG. 657

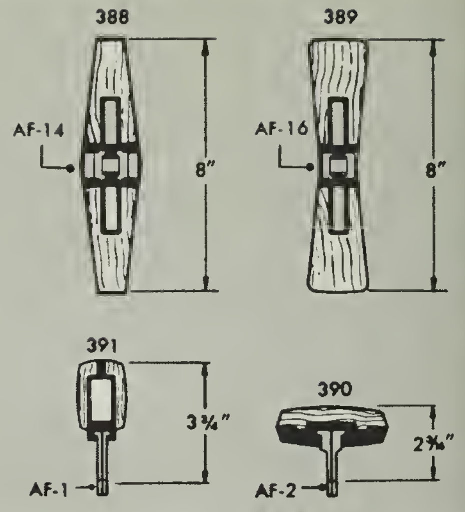

112
AF-2
1 15/16"
109
AF-1
1 7/8"
*114
AF-1
1 7/8"
157
AF-2
2 1/8"
177
AF-2
2 1/16"
175
AF-2
3"
164
AF-2
3 5/16"
22-AL
AF-3
3 3/8"
1 3/8"
FOR FLAT OR CONTOURED HANDRAILS
178
AF-1
1 15/16"
396
AF-1
3 3/4"
121
AF-2
2 3/8"
176
AF-1
2 5/8"
167
AF-1
2 1/16"
168
AF-2
2 9/16"
395
AF-2
2 3/16"

ALUMINUM RAILS

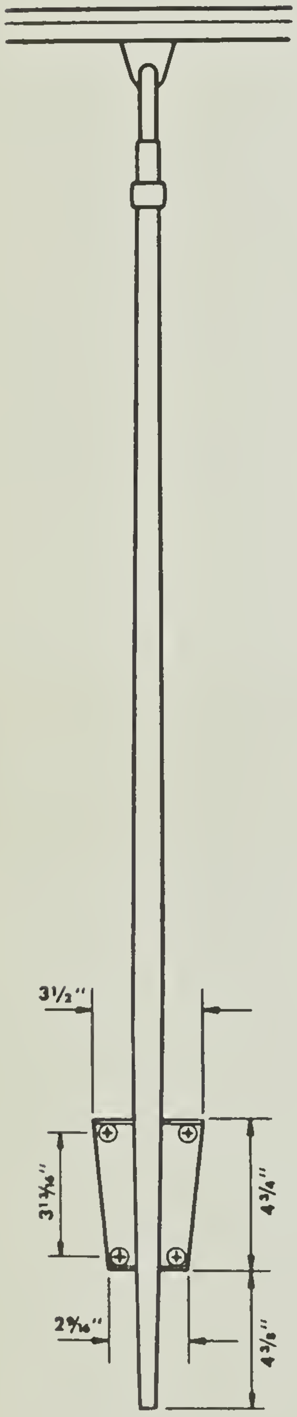
FULL SIZE SECTIONS PAGES — 146-149


V-167-B
AF-1
2 1/4"
V-168-B
AF-2
2 5/8"

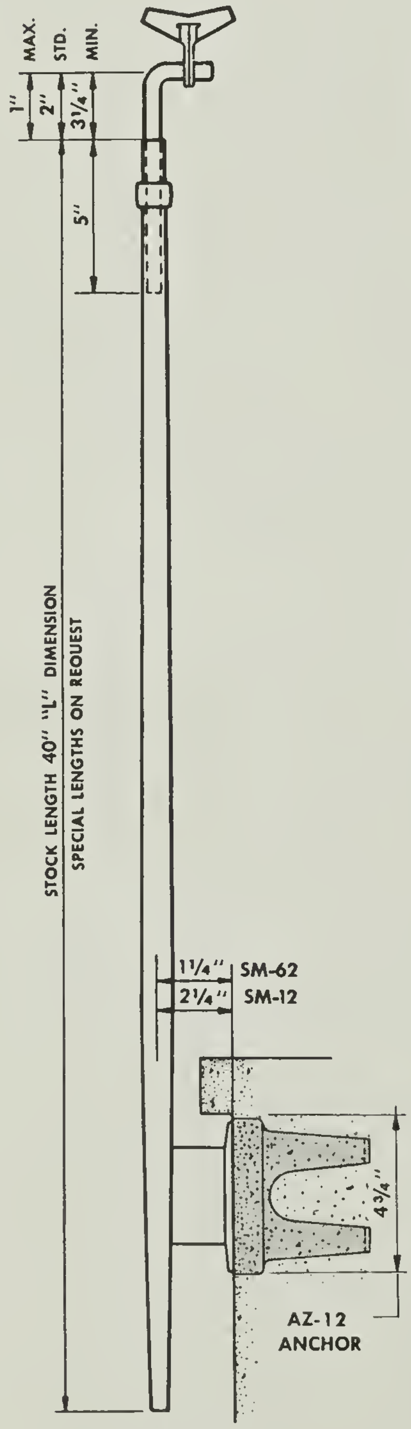
VINYL RAILS


388
AF-14
8"
389
AF-16
8"
391
AF-1
3 3/4"
390
AF-2
2 3/16"

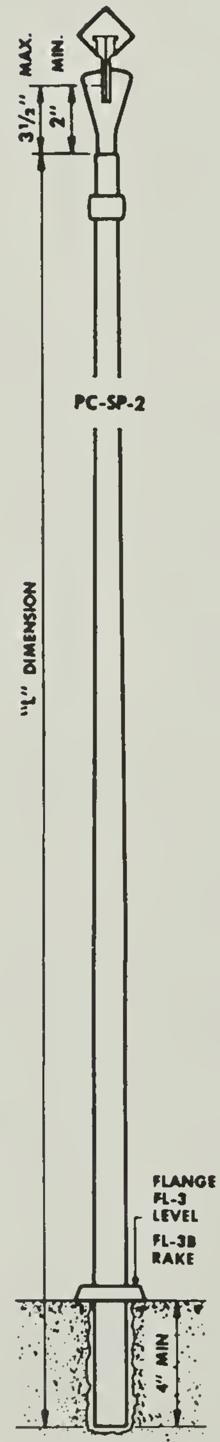
WOOD RAILS


3 1/2"
3 13/16"
4 3/4"
2 9/16"
4 3/8"

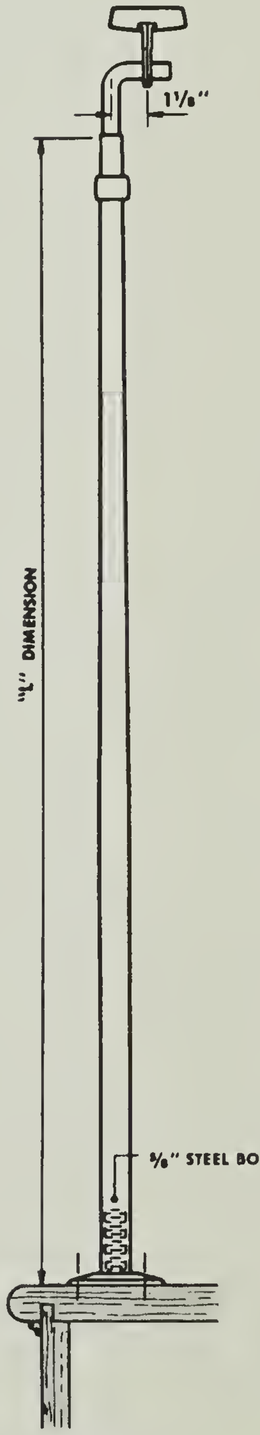
SIDE ELEVATION


MAX.
STD.
MIN.
1"
2"
3 1/4"
5"
STOCK LENGTH 40" "L" DIMENSION
SPECIAL LENGTHS ON REQUEST
1 1/4" SM-62
2 1/4" SM-12
4 3/4"
AZ-12
ANCHOR

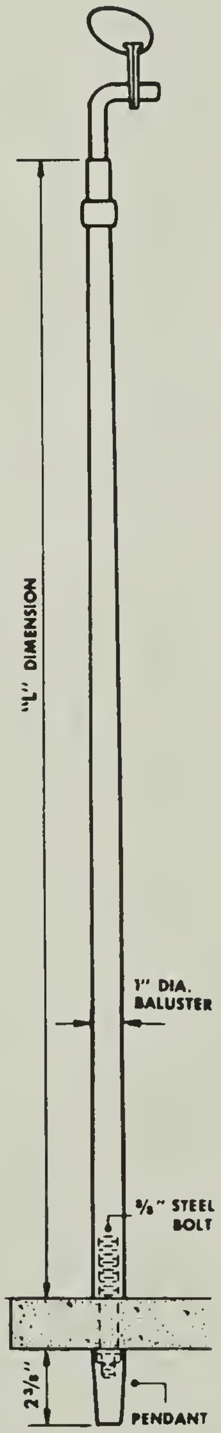
SM-12 BRACKET


MAX.
MIN.
3 1/2"
2"
PC-SP-2
"L" DIMENSION
FLANGE
FL-3
LEVEL
FL-3B
RAKE
4" MIN

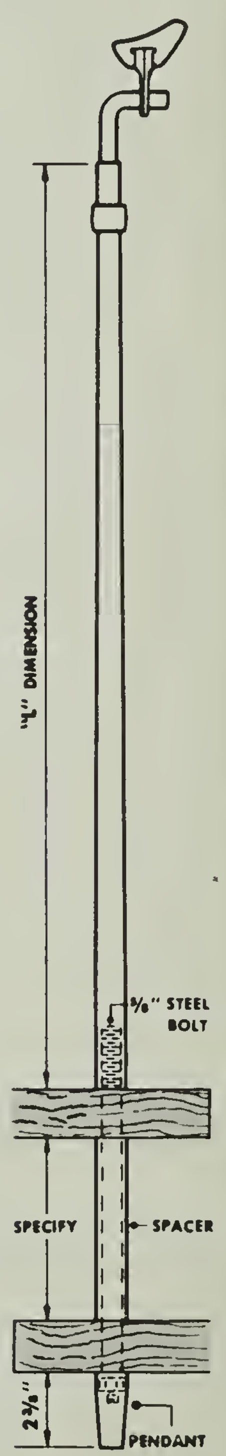
GROUTED BALUSTER


1 1/8"
"L" DIMENSION
5/8" STEEL BOLT

MOUNTING "E"

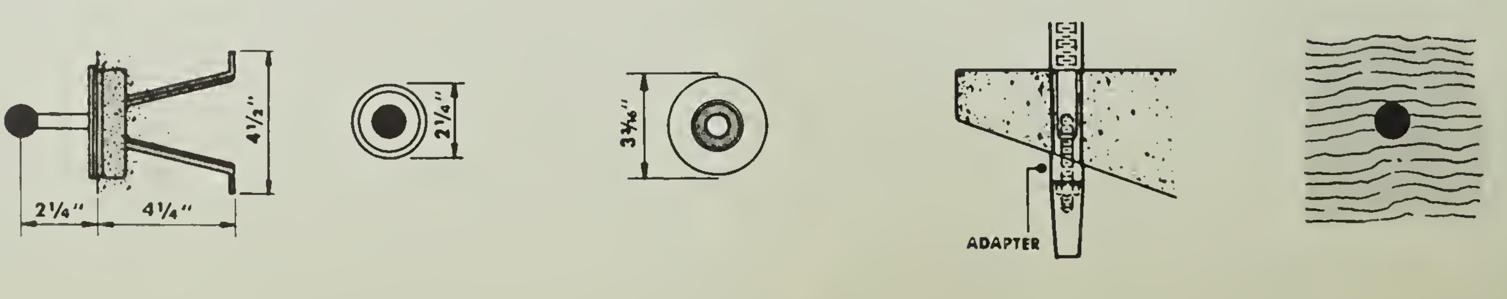

"L" DIMENSION
1" DIA.
BALUSTER
5/8" STEEL
BOLT
2 3/8"
PENDANT

TM-4 MOUNTING


"L" DIMENSION
5/8" STEEL
BOLT
SPECIFY
SPACER
2 3/8"
PENDANT

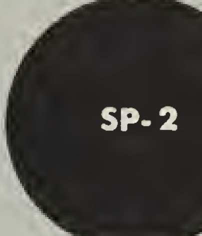
TM-4 WITH SPACER

ALTERNATE MOUNTINGS
SCALE 1½" = 1'-0"


4 1/2"
2 1/4"
4 1/4"
2 1/4"
3 5/16"
ADAPTER

BALUSTER SP-2 Blu

BALUSTER



SECTION FULL SIZE

BALUSTER SPACING—NOT TO EXCEED 1'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 1'-0" FOR LEVEL RAILING. REFER TO PAGE 150.

STARTING POSTS—BALUSTER IS NOT TO BE USED AS A STARTING POST. USE POST SP-1 OR RETURN HANDRAIL TO STEP OR FLOOR.

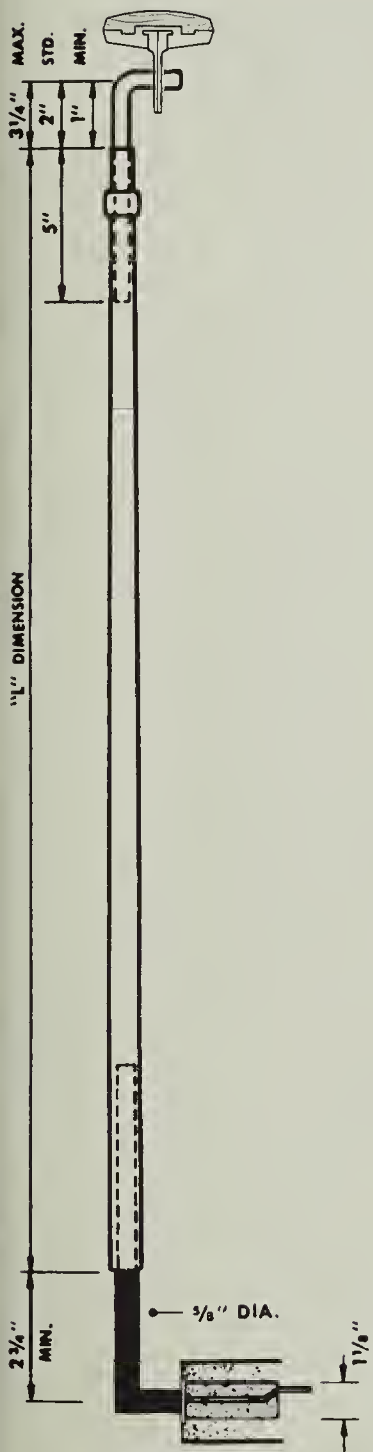
BOXED METAL STRINGERS—SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

CONCRETE STAIRS—USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE . . . ELIMINATES EXPANSION SHIELDS.

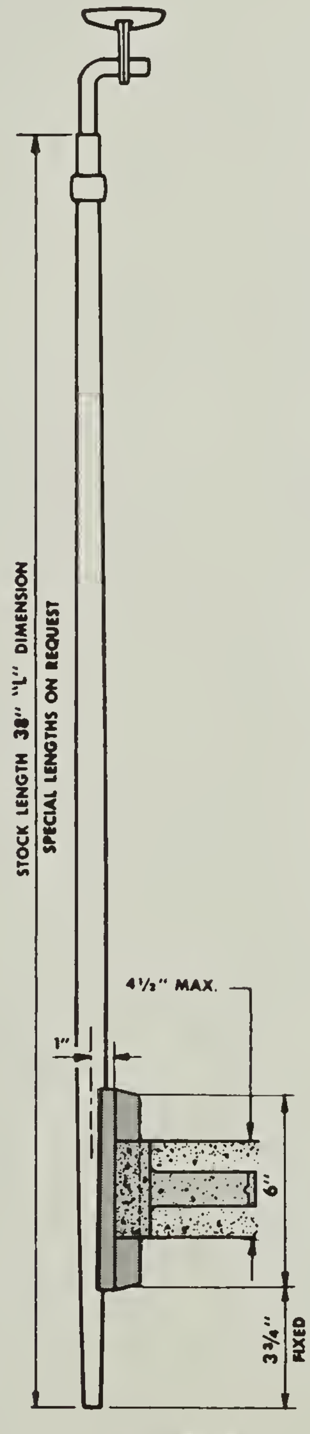
RIGIDITY—THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

FABRICATION—LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

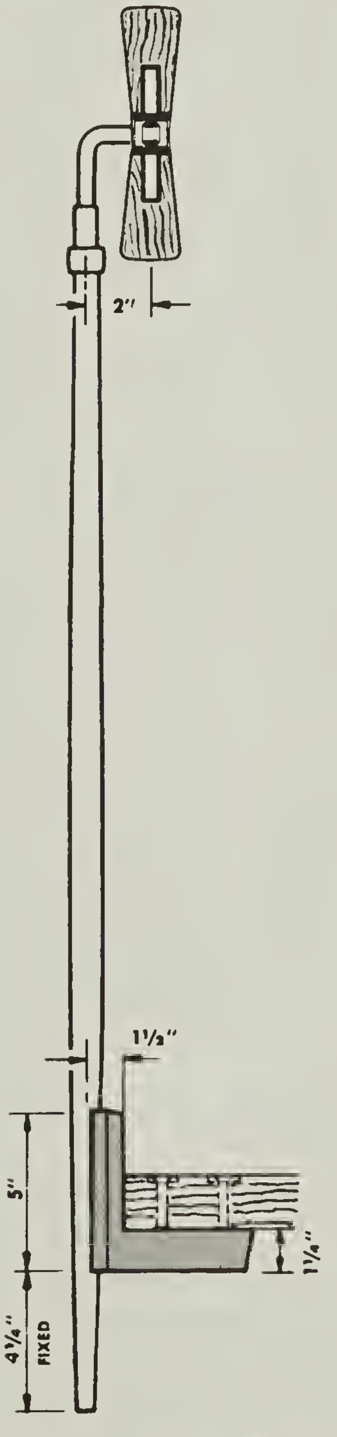
SERVICE TO ARCHITECT—OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT


MAX.
STD.
MIN.
3¼"
2"
1"
5"
"L" DIMENSION
⅝" DIA.
2¾" MIN.
1⅛"

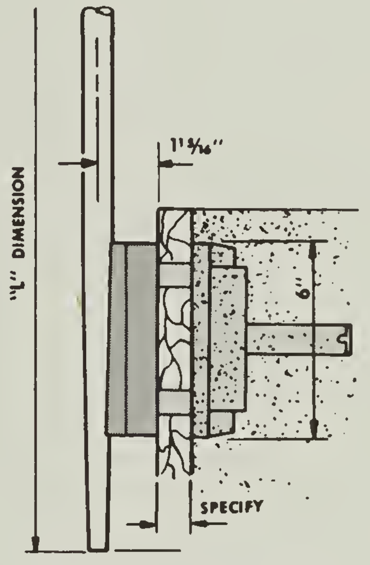
MOUNTING "H"


STOCK LENGTH 38" "L" DIMENSION
SPECIAL LENGTHS ON REQUEST
4½" MAX.
1"
6"
3¾" FIXED

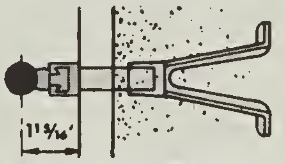
AU-SP-2 ANCHOR BRACKET


2"
1½"
5"
4¼" FIXED
1¼"

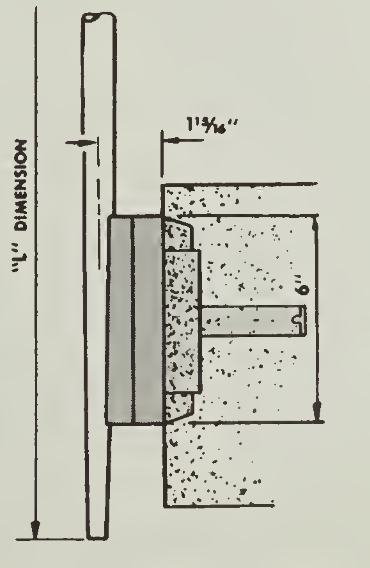
ABW-SP-2 ANCHOR BRACKET


"L" DIMENSION
1⁵⁄₁₆"
6"
SPECIFY

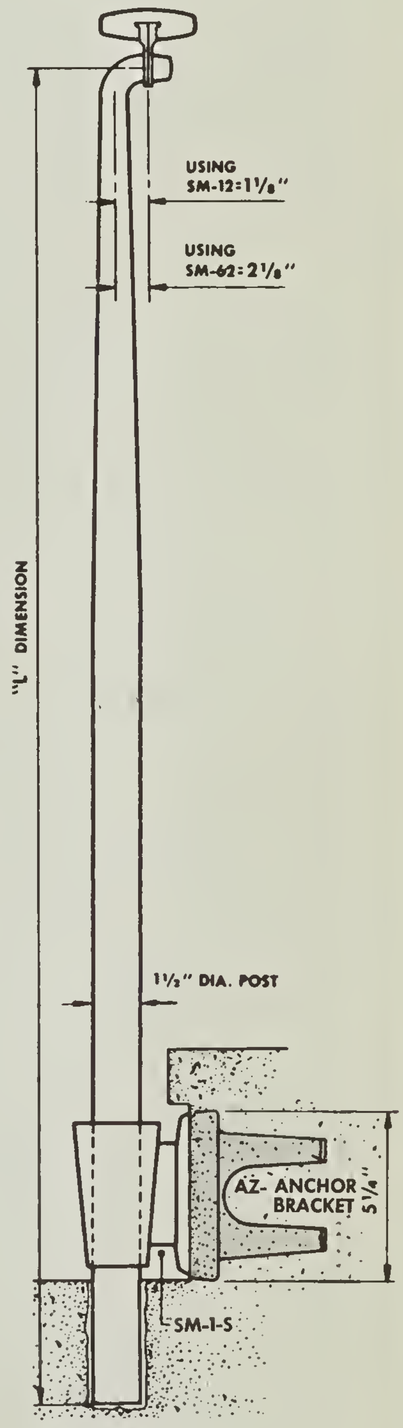
AUTB-SP-2 ANCHOR BRACKET



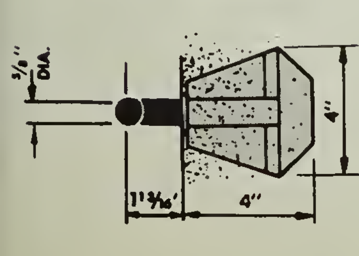
AUTB-SP-2 ANCHOR BRACKET

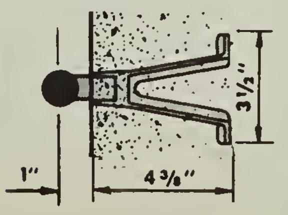

"L" DIMENSION
1⁵⁄₁₆"
6"

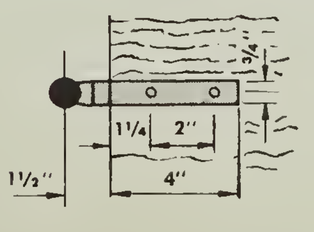
AUT-SP-2 ANCHOR BRACKET

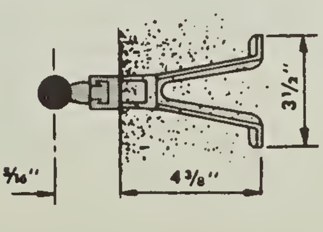

USING SM-12=1⅛"
USING SM-62=2⅛"
"L" DIMENSION
1½" DIA. POST
AZ- ANCHOR BRACKET
5¼"
SM-1-S

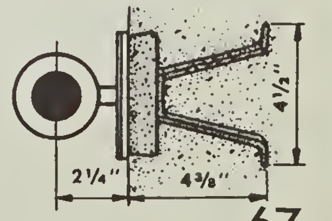
SP-1 STARTING POST

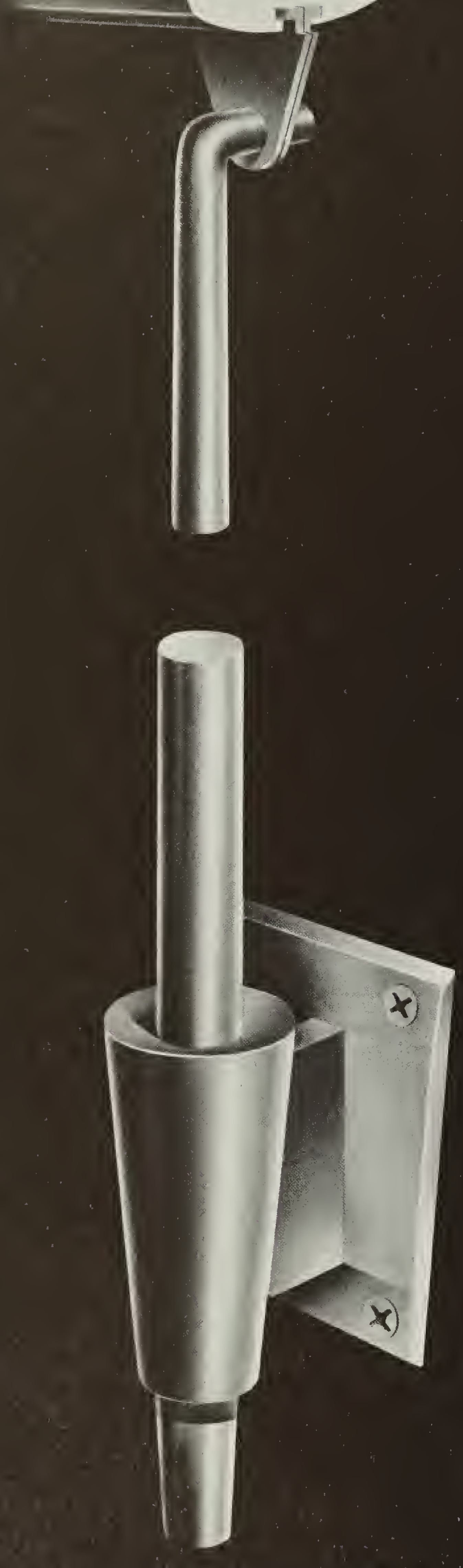

⅝" DIA.
4"
1⁵⁄₁₆"
4"

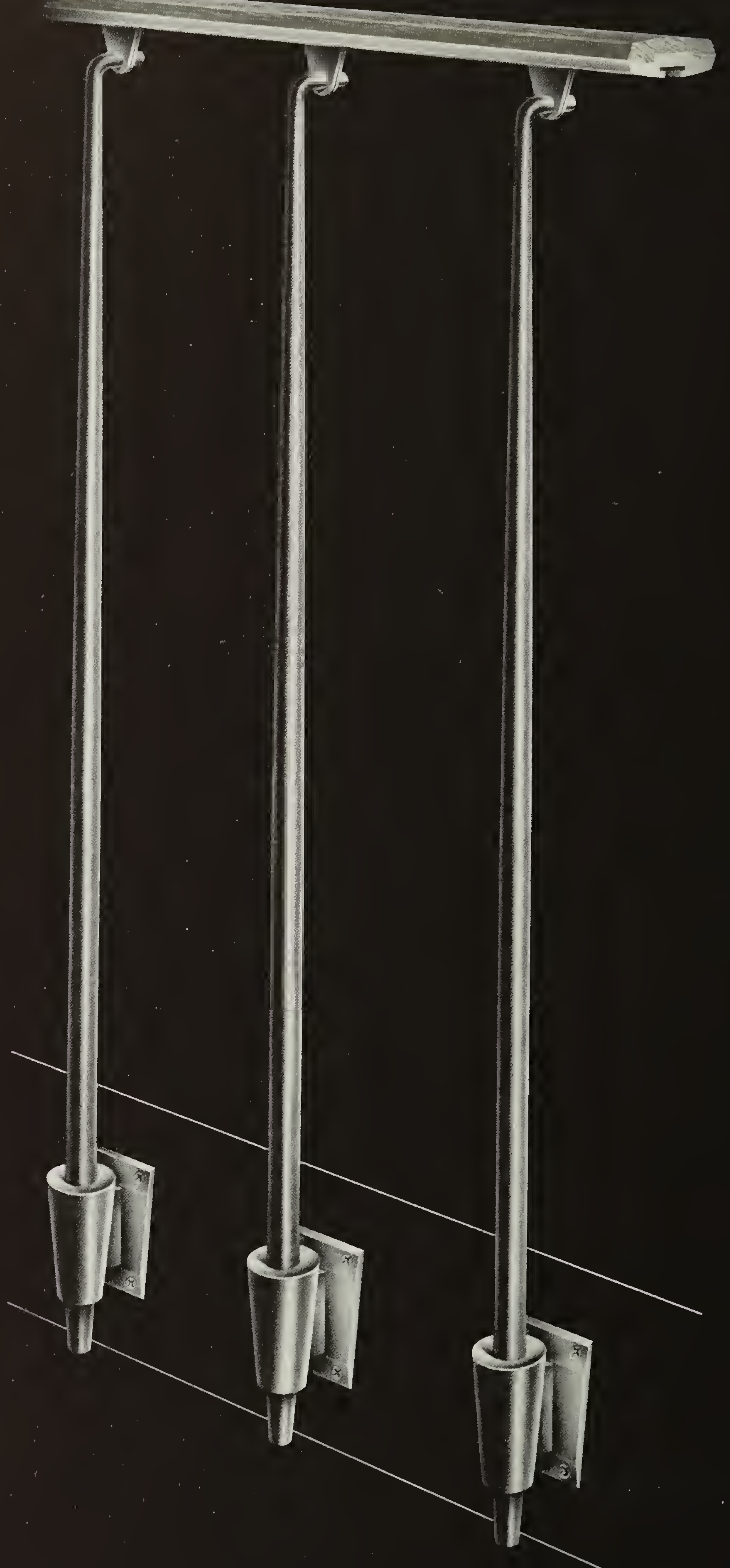




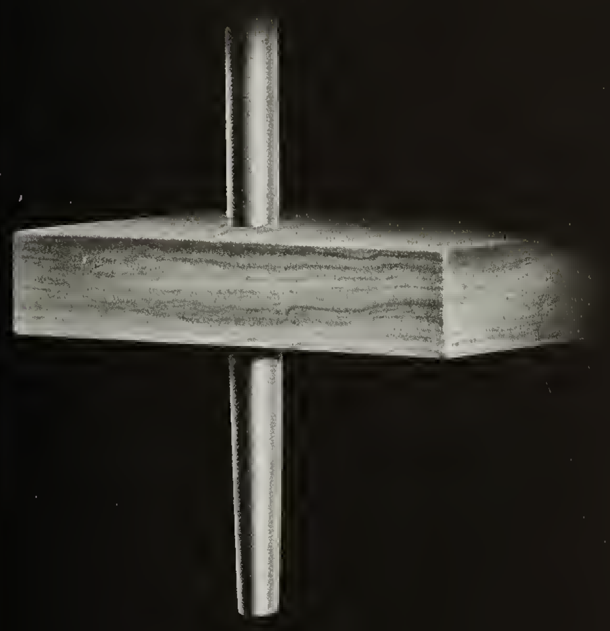


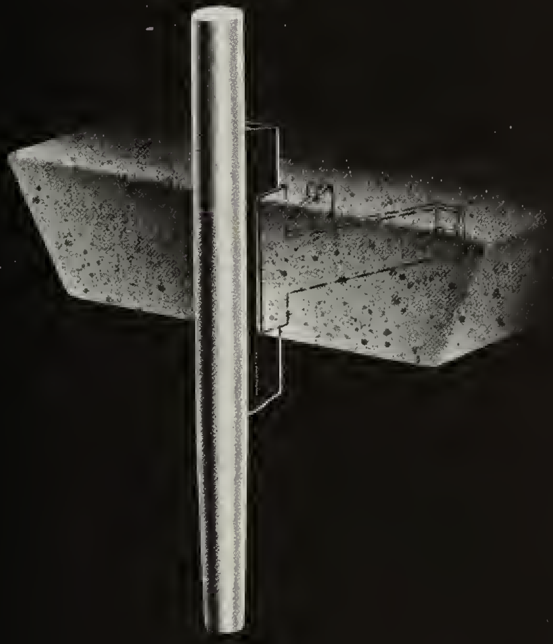


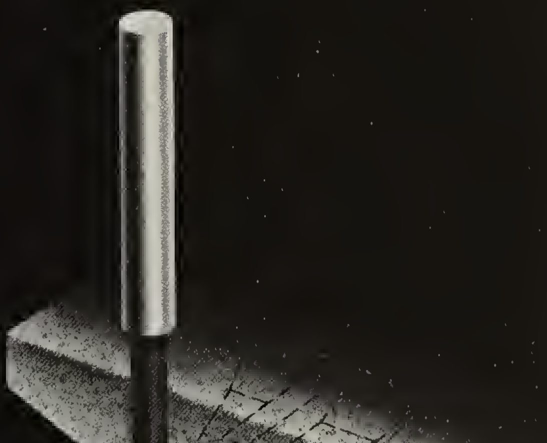




MAXIMUM BALUSTER SPACING 1'-0''







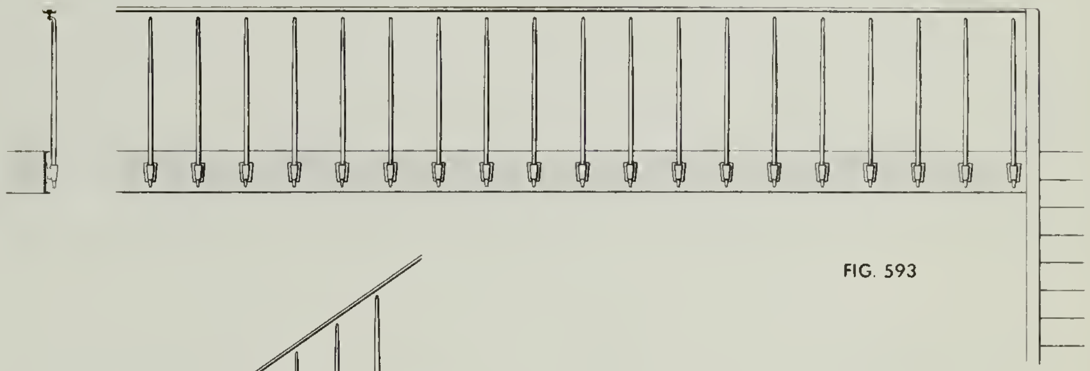


FIG. 593

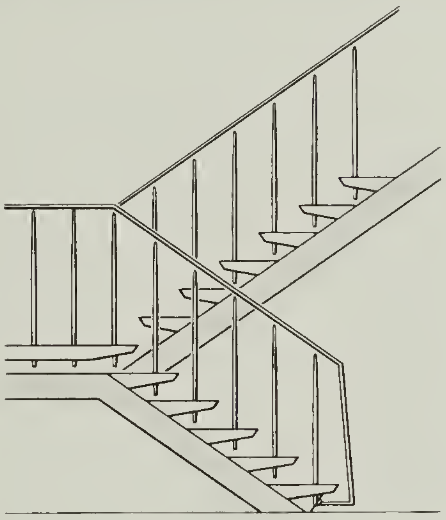


FIG. 594

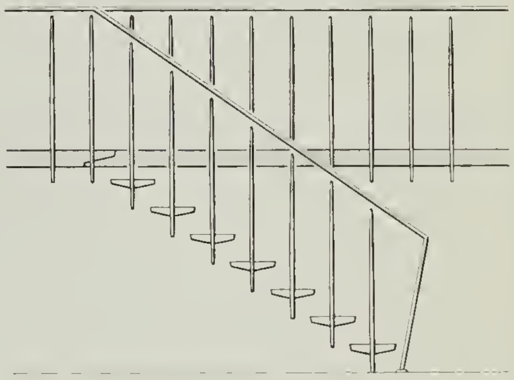


FIG. 595

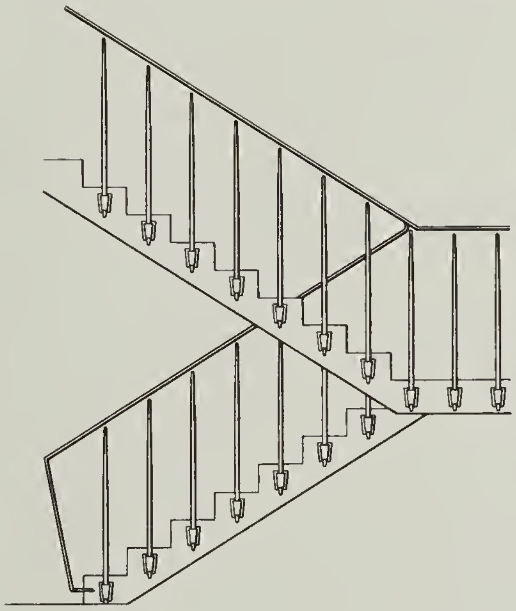


FIG. 574

DETAILS

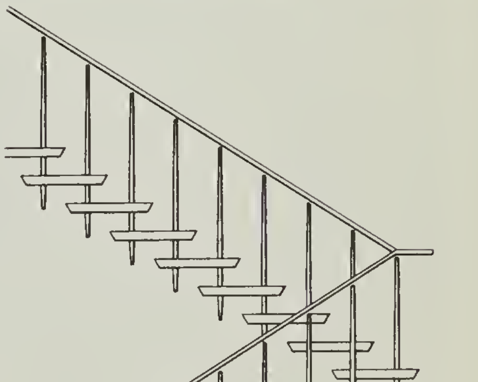


FIG. 575

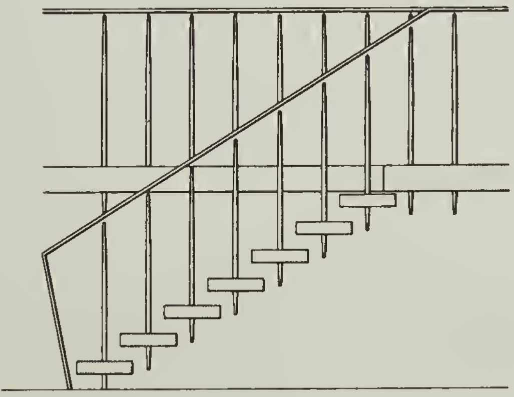
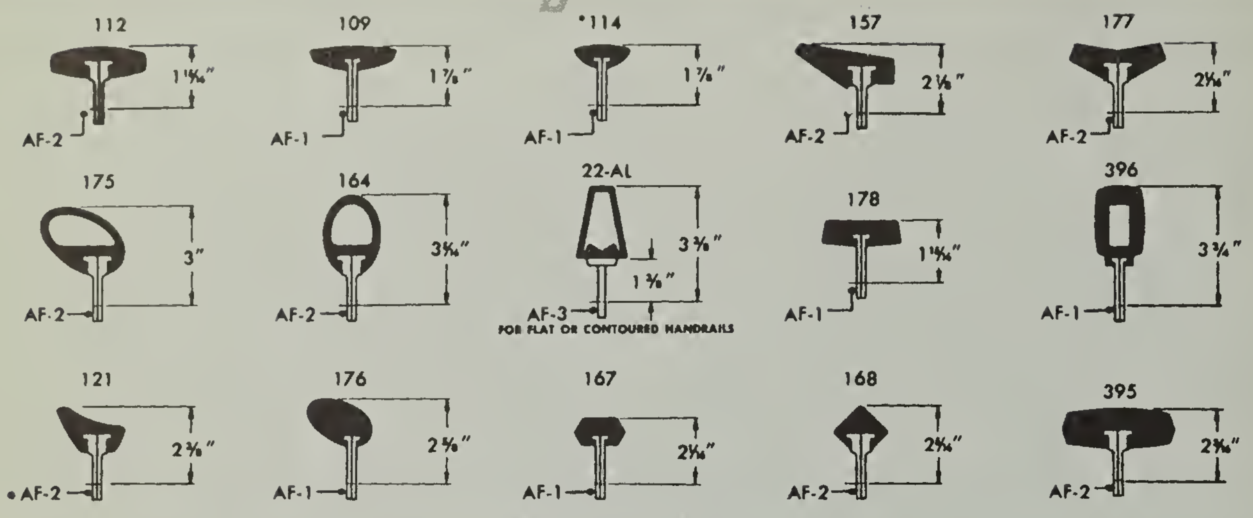
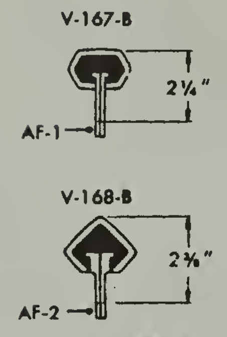


FIG. 576

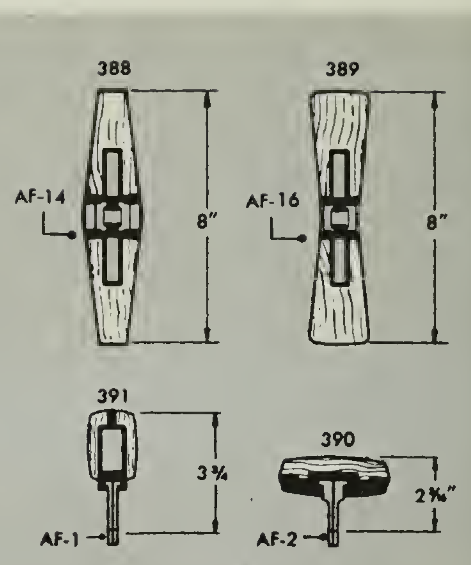

112
1 15/16"
AF-2
109
1 7/8"
AF-1
•114
1 7/8"
AF-1
157
2 1/8"
AF-2
177
2 1/16"
AF-2
175
3"
AF-2
164
3 5/16"
AF-2
22-AL
3 3/8"
1 3/8"
AF-3
FOR FLAT OR CONTOURED HANDRAILS
178
1 15/16"
AF-1
396
3 3/4"
AF-1
121
2 3/8"
• AF-2
176
2 5/8"
AF-1
167
2 1/16"
AF-1
168
2 5/16"
AF-2
395
2 3/16"
AF-2

ALUMINUM RAILS

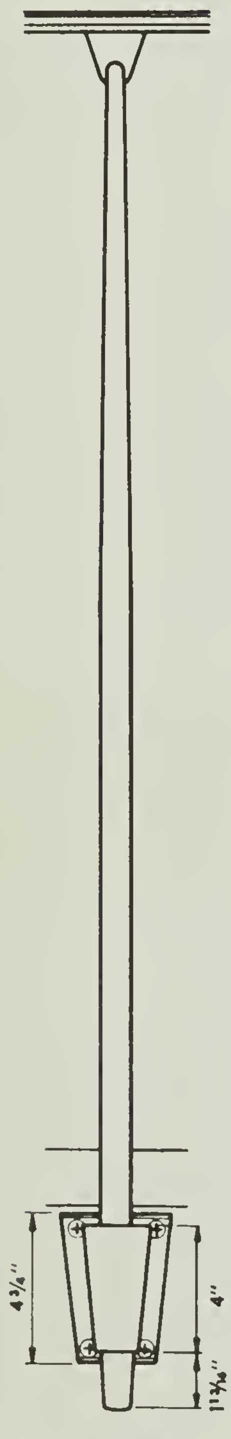
FULL SIZE SECTIONS
PAGES — 146-149


V-167-B
2 1/4"
AF-1
V-168-B
2 3/8"
AF-2

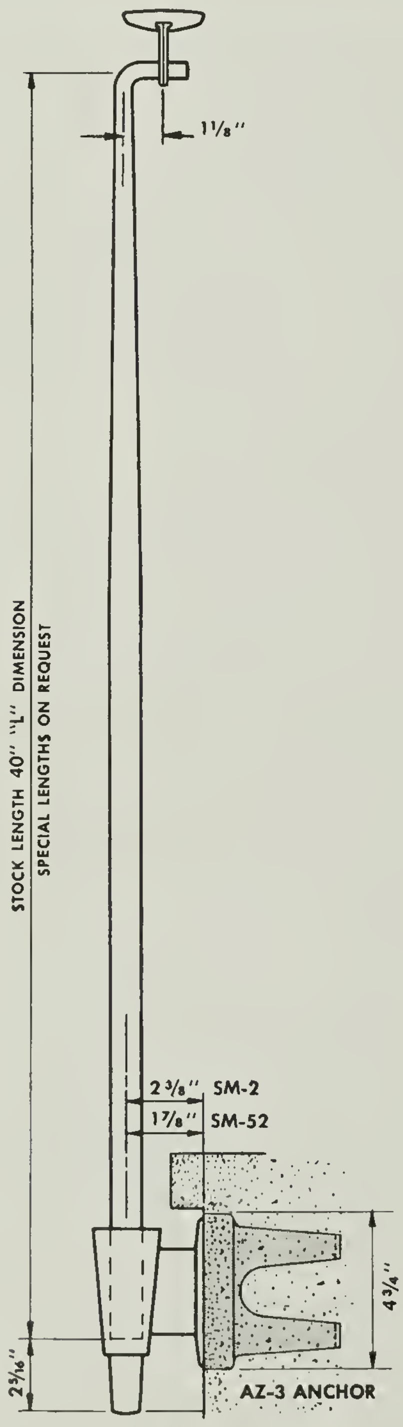
VINYL RAILS


388
AF-14
8"
389
AF-16
8"
391
3 3/4
AF-1
390
2 3/16"
AF-2

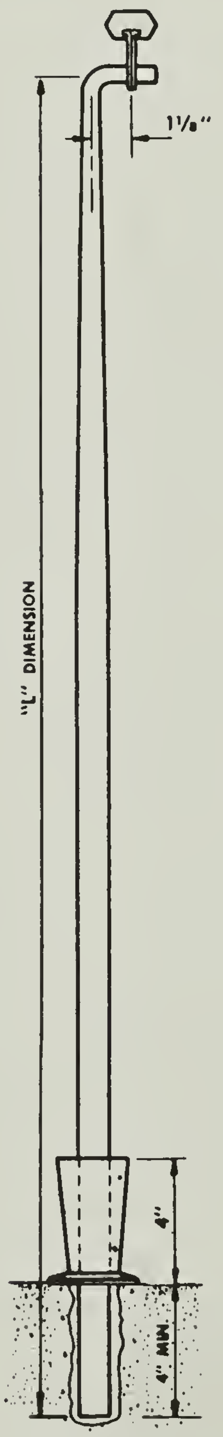
WOOD RAILS



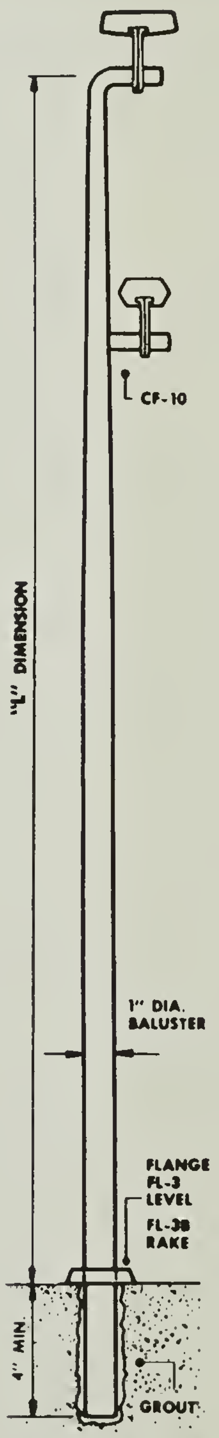
SIDE ELEVATION


1 1/8"
STOCK LENGTH 40" "L" DIMENSION
SPECIAL LENGTHS ON REQUEST
2 3/8" SM-2
1 7/8" SM-52
4 3/4"
2 9/16"
AZ-3 ANCHOR

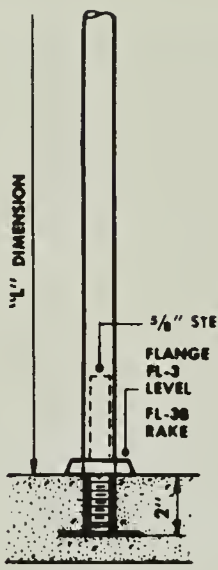
SM- BRACKET


1 1/8"
"L" DIMENSION
4"
4" MIN

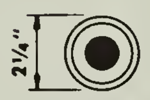
TM-22 MOUNTING


CF-10
"L" DIMENSION
1" DIA. BALUSTER
FLANGE
FL-3
LEVEL
FL-38
RAKE
4" MIN
GROUT

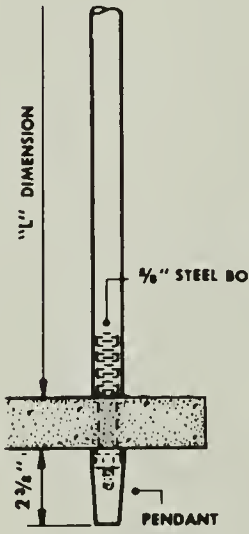
GROUTED BALUSTER


"L" DIMENSION
5/8" STEEL BOLT
FLANGE
FL-3
LEVEL
FL-38
RAKE
2"

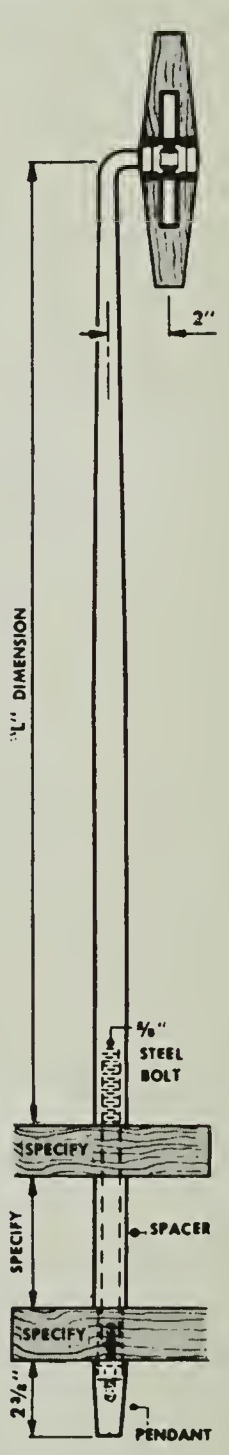
MOUNTING "D"



FL-3 FLANGE

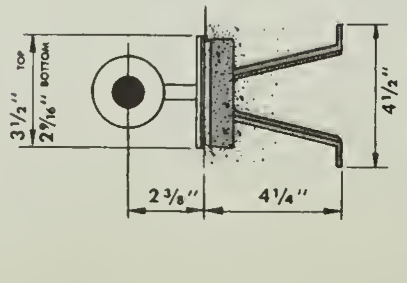

"L" DIMENSION
5/8" STEEL BOLT
2 3/8"
PENDANT

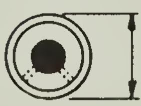
TM-4 MOUNTING

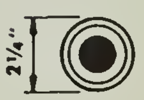

2"
"L" DIMENSION
5/8" STEEL BOLT
SPECIFY
SPACER
SPECIFY
SPECIFY
2 3/8"
PENDANT

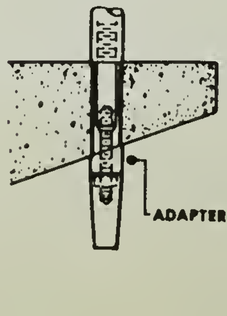
TM- 4 WITH SPACER

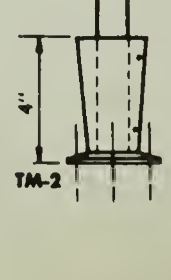
ALTERNATE MOUNTINGS
SCALE 1 1/2" = 1'-0"


3 1/2" TOP
2 9/16" BOTTOM
4 1/2"
2 3/8"
4 1/4"

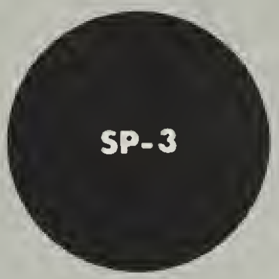








BALUSTER



SECTION FULL SIZE

BALUSTER SPACING — NOT TO EXCEED 1'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 1'-0" FOR LEVEL RAILING. REFER TO PAGE 150.

STARTING POSTS—BALUSTER IS NOT TO BE USED AS A STARTING POST. USE POST SP-1 OR RETURN HANDRAIL TO STEP OR FLOOR.

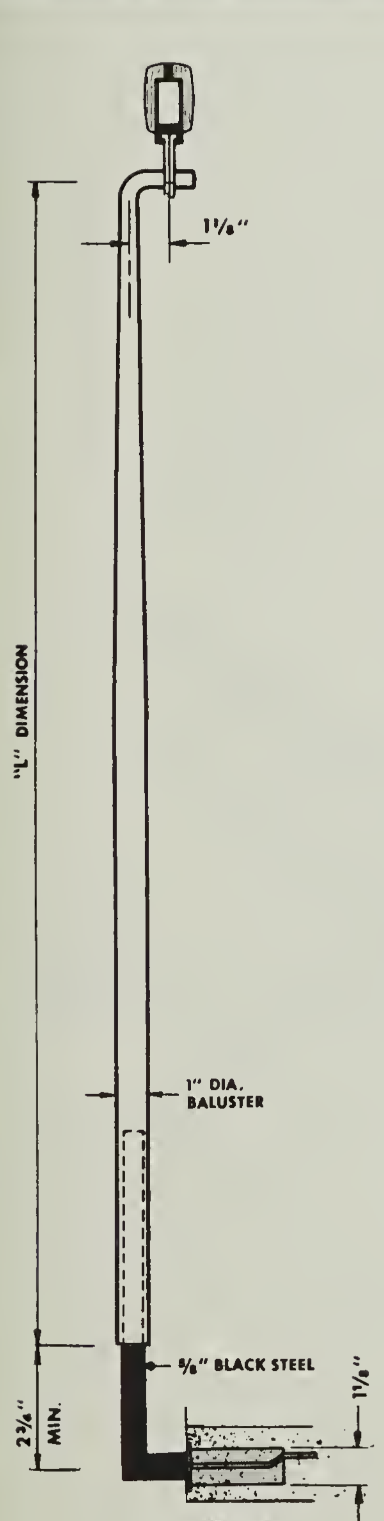
BOXED METAL STRINGERS — SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

CONCRETE STAIRS — USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE . . . ELIMINATES EXPANSION SHIELDS.

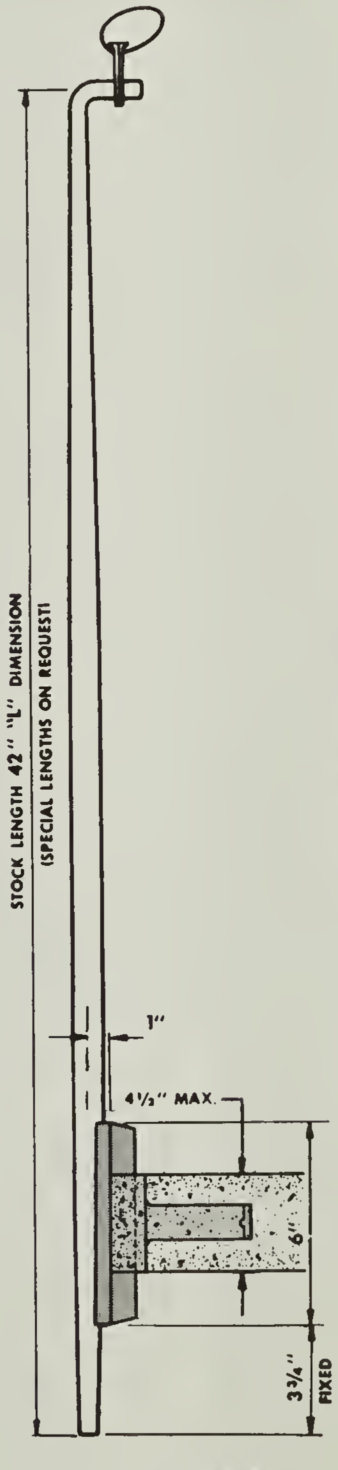
RIGIDITY — THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

FABRICATION — LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

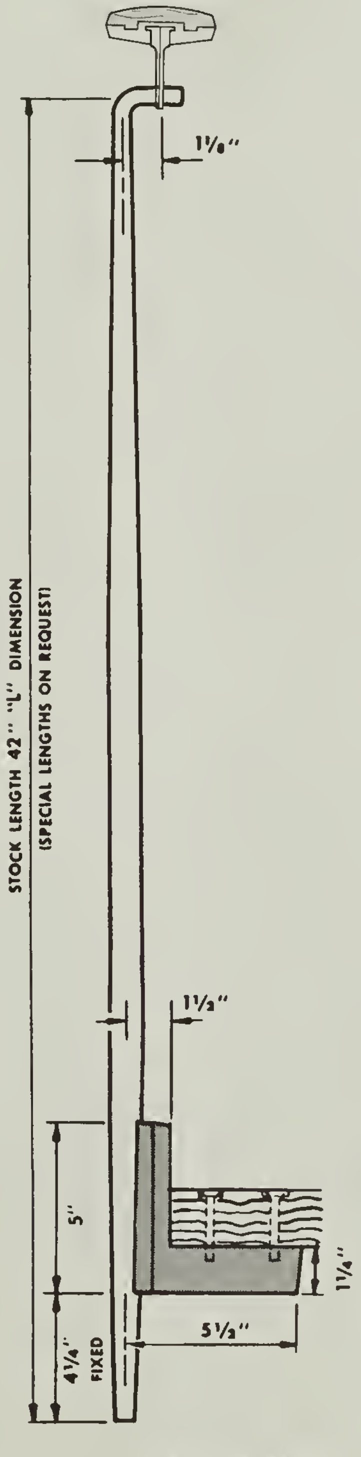
SERVICE TO ARCHITECT — OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.


1⅛"
"L" DIMENSION
1" DIA. BALUSTER
⅝" BLACK STEEL
2¾" MIN.
1⅛"

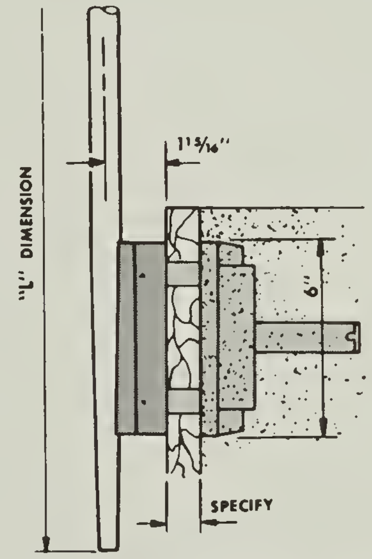
MOUNTING "H"


STOCK LENGTH 42" "L" DIMENSION (SPECIAL LENGTHS ON REQUEST)
1"
4½" MAX.
6"
3¾" FIXED

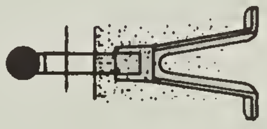
AU-SP-3 ANCHOR BRACKET


1⅛"
STOCK LENGTH 42" "L" DIMENSION (SPECIAL LENGTHS ON REQUEST)
1½"
5"
4¼" FIXED
1¼"
5½"

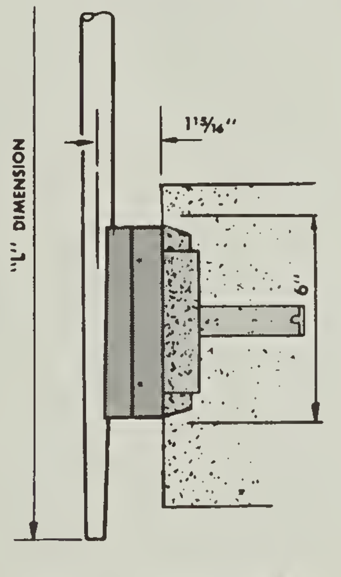
ABW-SP-3 ANCHOR BRACKET


"L" DIMENSION
1⁵⁄₁₆"
6"
SPECIFY

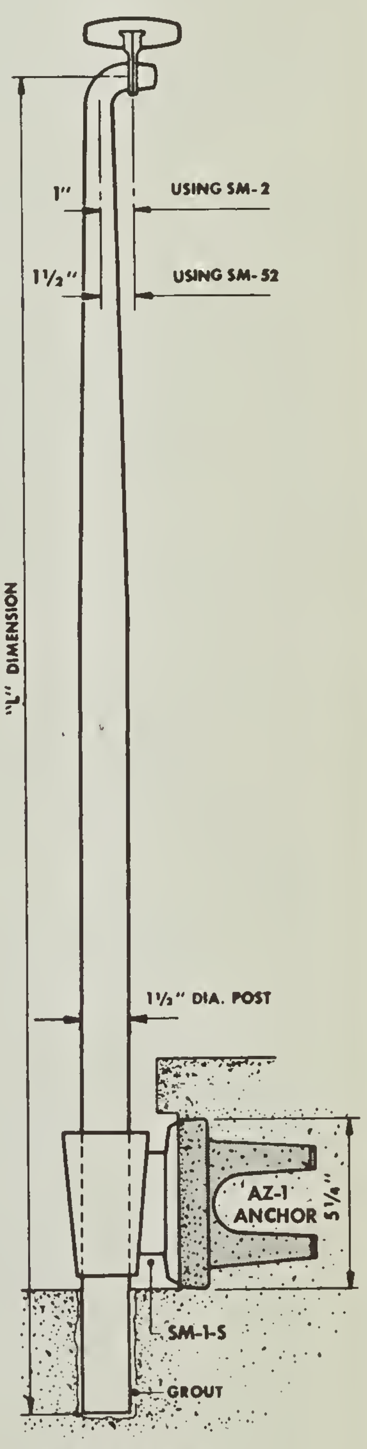
AUTB-SP-3 ANCHOR BRACKET



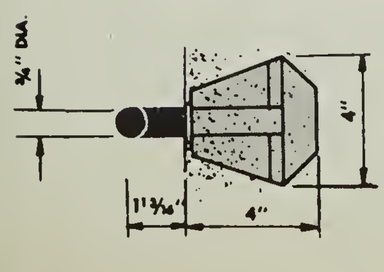
AUTB-SP-3 ANCHOR BRACKET

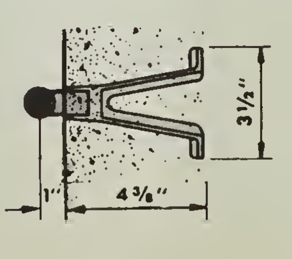

"L" DIMENSION
1⁵⁄₁₆"
6"

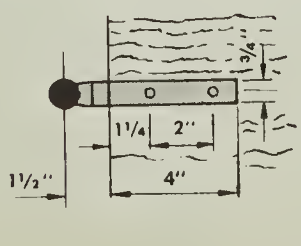
AUT-SP-3 ANCHOR BRACKET

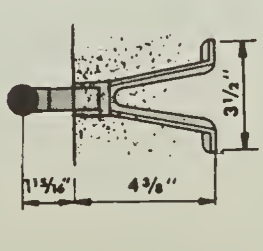

1"
USING SM-2
1½"
USING SM-52
"L" DIMENSION
1½" DIA. POST
AZ-1 ANCHOR
5¼"
SM-1-S
GROUT

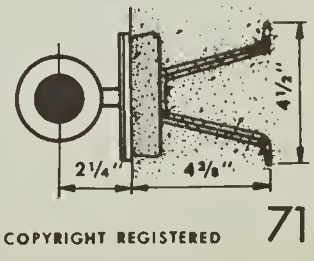
SP-1 STARTING POST

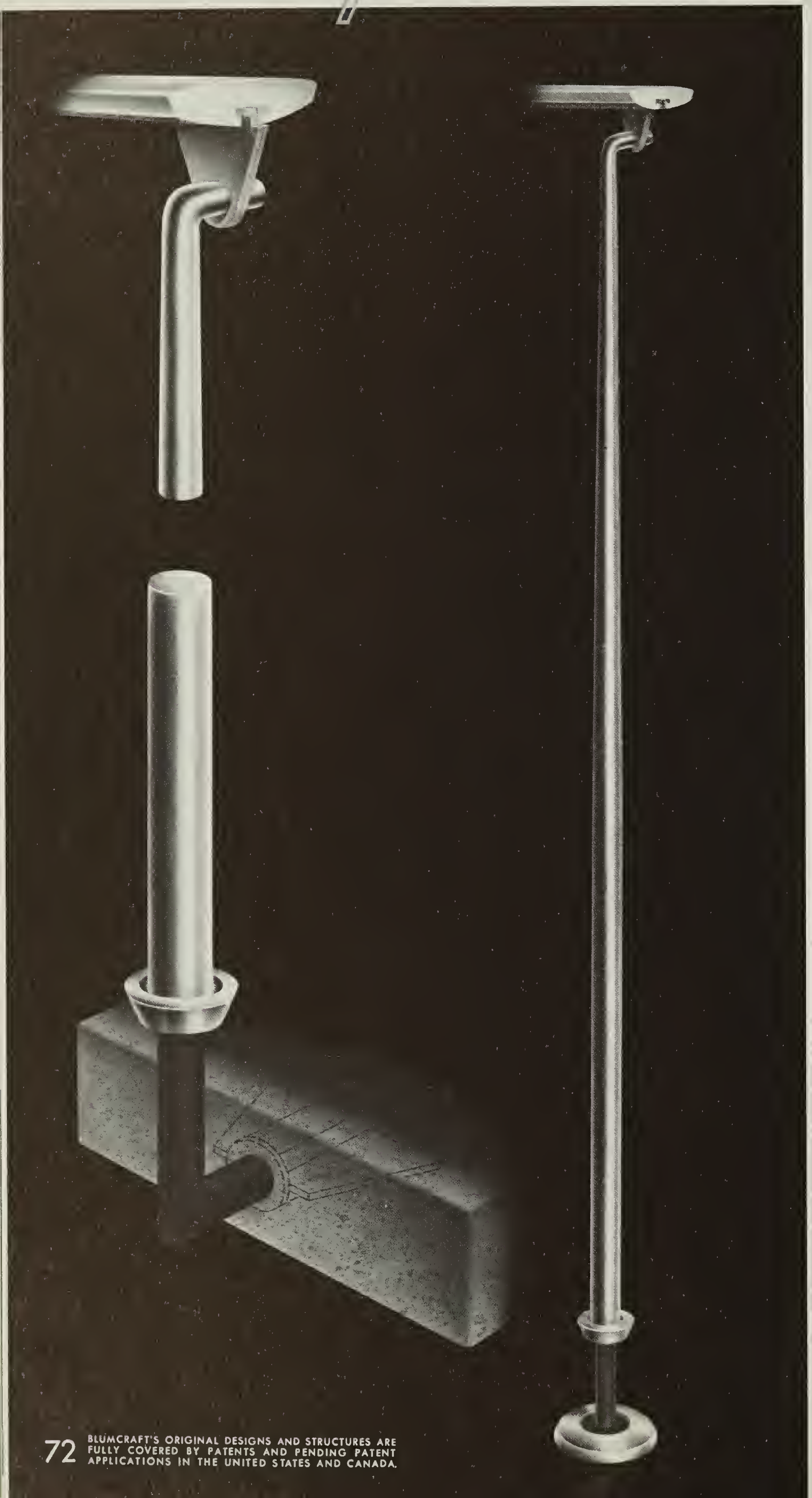

¾" DIA.
4"
1³⁄₁₆"
4"

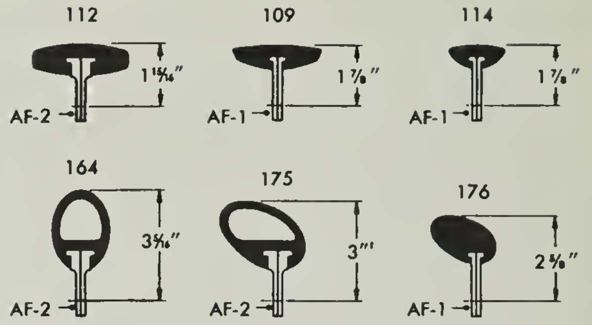











112
1 15/16"
AF-2
109
1 7/8"
AF-1
114
1 7/8"
AF-1
164
3 5/16"
AF-2
175
3"
AF-2
176
2 5/8"
AF-1

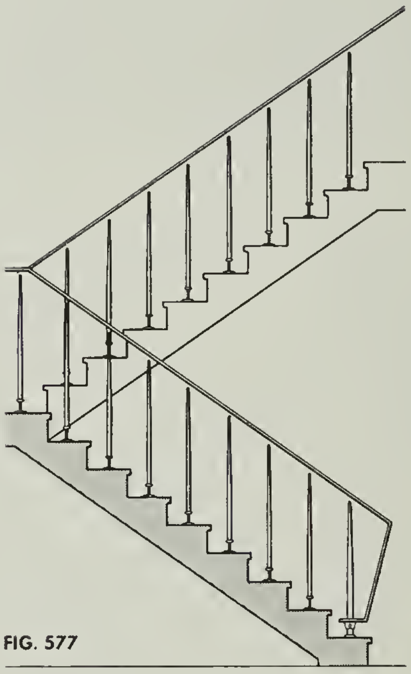


FIG. 577

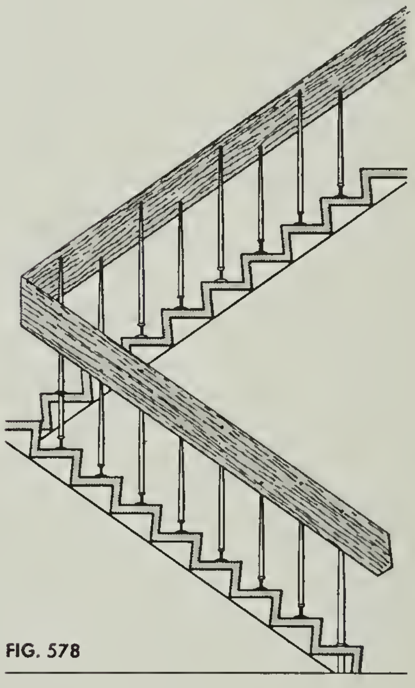


FIG. 578

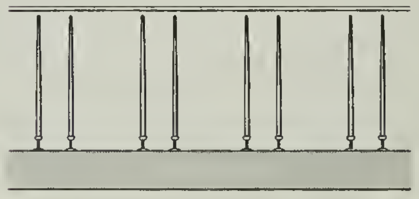


FIG. 579

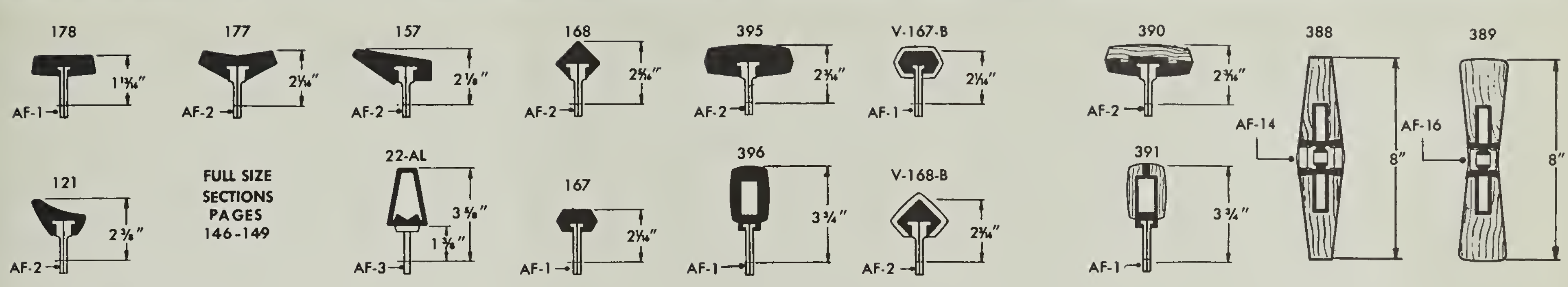
BALUSTER SPACING—NOT TO EXCEED 1'-0"

STARTING POSTS—BALUSTER IS NOT TO BE USED AS A STARTING POST. USE POST SP-1 OR RETURN HANDRAIL TO STEP OR FLOOR.

RIGIDITY—THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

NOTE:

FOR EXTERIOR INSTALLATIONS FABRICATOR IS TO APPLY ADDITIONAL COATS OF PROTECTIVE PAINT TO BLACK STEEL STEMS.

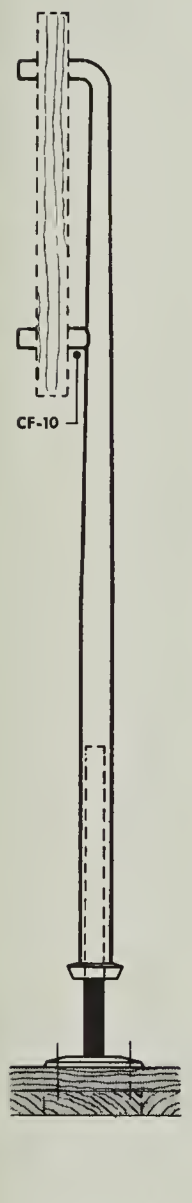

178
AF-1
1 13/16"
177
AF-2
2 1/16"
157
AF-2
2 1/8"
168
AF-2
2 5/16"
395
AF-2
2 3/16"
V-167-B
AF-1
2 1/16"
390
AF-2
2 3/16"
388
AF-14
8"
389
AF-16
8"
121
AF-2
2 3/8"
22-AL
AF-3
3 5/8"
1 3/8"
167
AF-1
2 1/16"
396
AF-1
3 3/4"
V-168-B
AF-2
2 5/16"
391
AF-1
3 3/4"

FULL SIZE SECTIONS PAGES 146-149

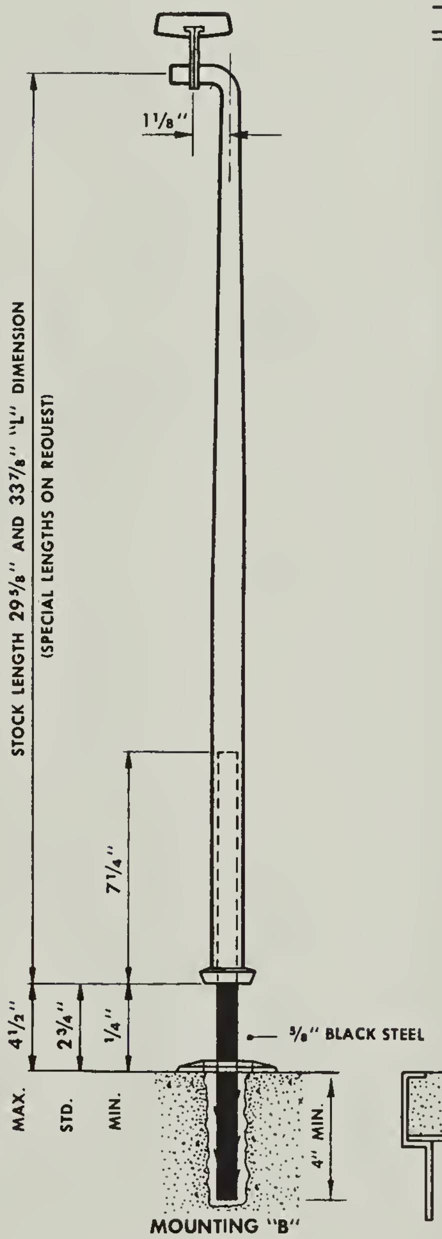
ALUMINUM RAILS

VINYL RAILS

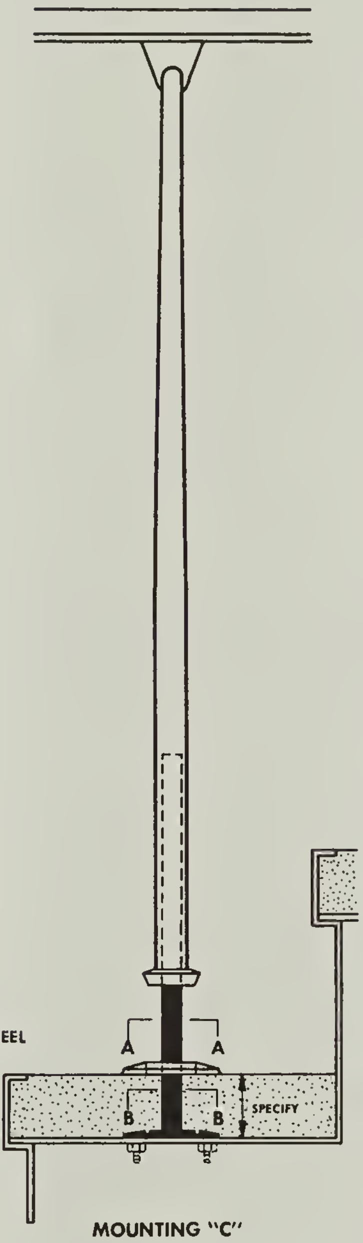
WOOD RAILS



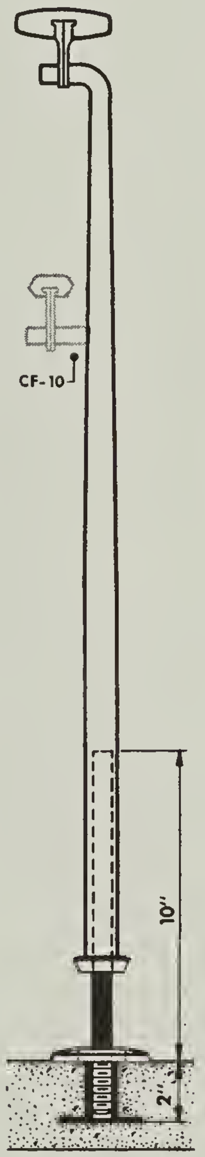
MOUNTING "A"


1 1/8"
STOCK LENGTH 29 5/8" AND 33 7/8" "L" DIMENSION
(SPECIAL LENGTHS ON REQUEST)
7 1/4"
4 1/2"
2 3/4"
1/4"
MAX.
STD.
MIN.
5/8" BLACK STEEL
4" MIN.

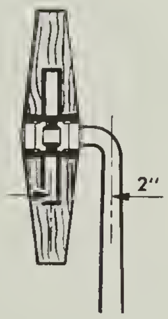
MOUNTING "B"

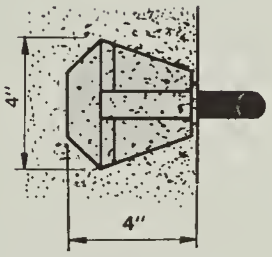

A
A
B
B
SPECIFY

MOUNTING "C"

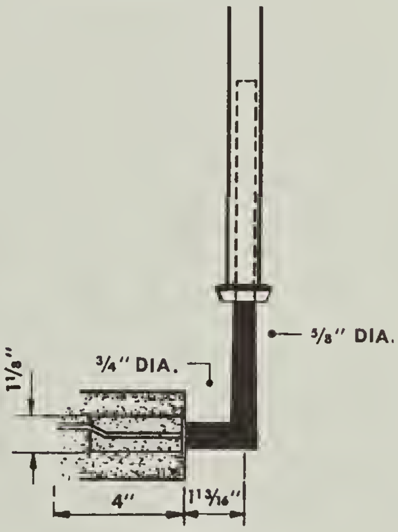


MOUNTING "D"

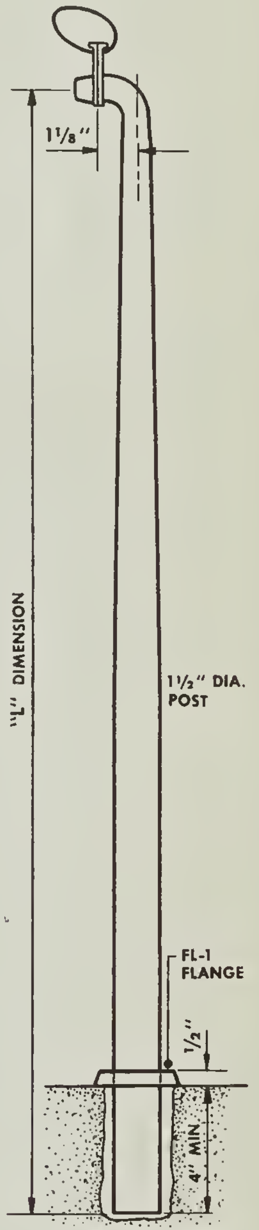




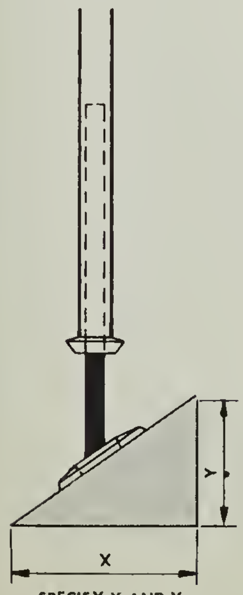
PLAN MOUNTING "H"


5/8" DIA.
3/4" DIA.
1 1/8"
4"
1 13/16"

MOUNTING "H"

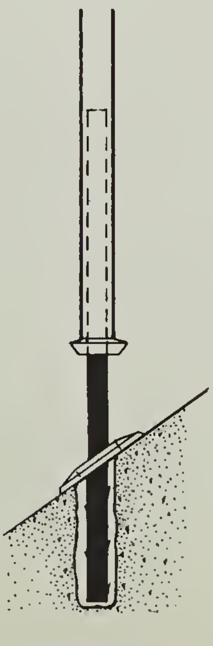

1 1/8"
"L" DIMENSION
1 1/2" DIA. POST
FL-1 FLANGE
1/2"
4" MIN

SP-1 STARTING POST

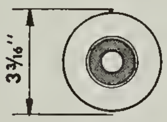


SPECIFY X AND Y

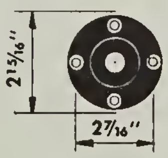
MOUNTING "F"



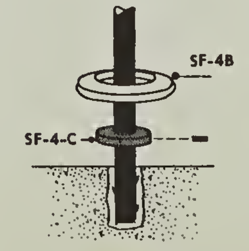
MOUNTING "G"



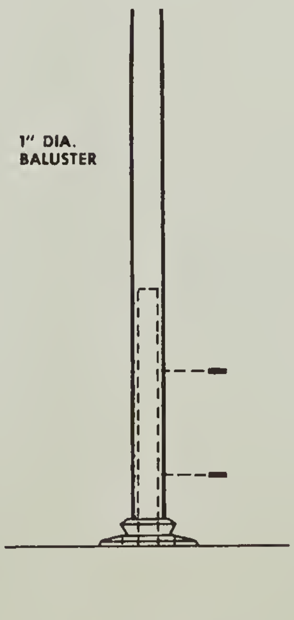
SECTION A-A



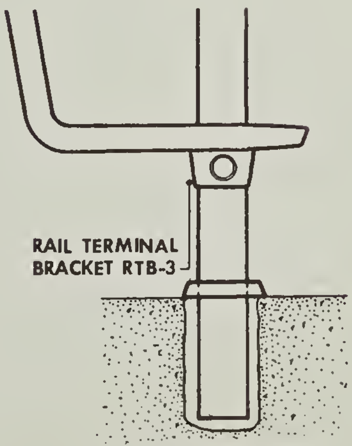
SECTION B-B



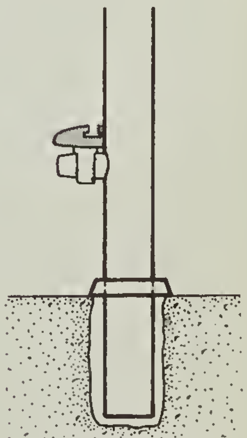
ASSEMBLY


1" DIA. BALUSTER

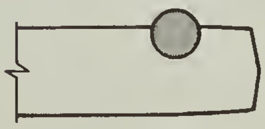
ALTERNATE POSITION


RAIL TERMINAL BRACKET RTB-3

DETAIL STARTING POST

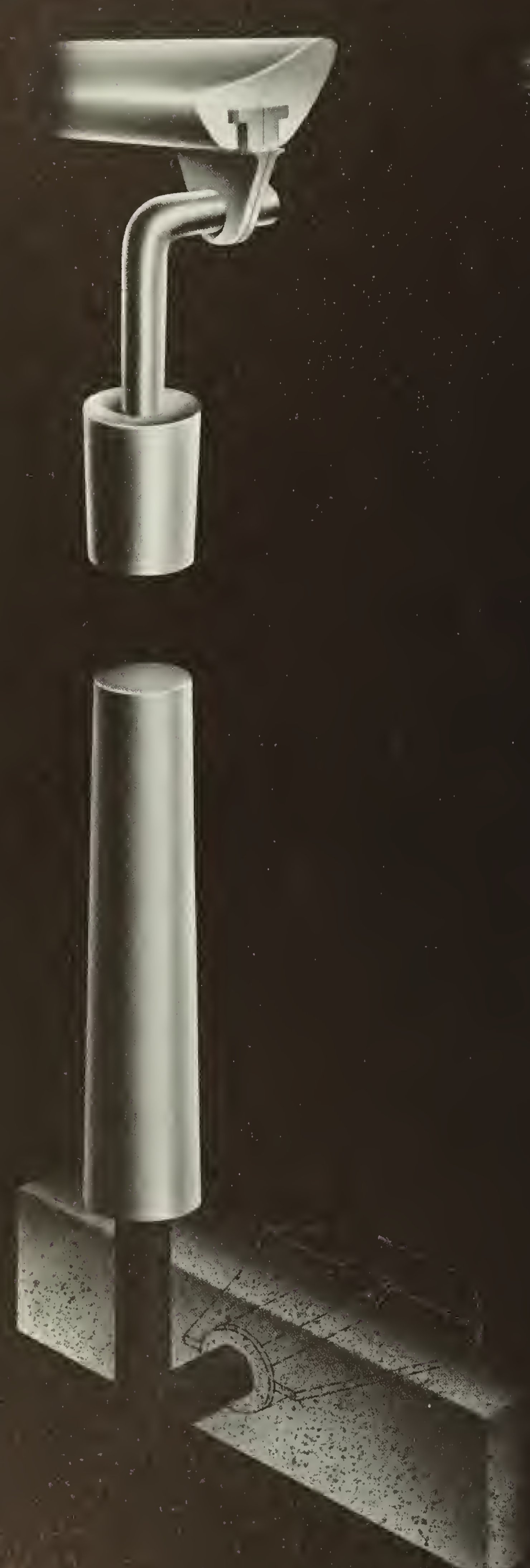


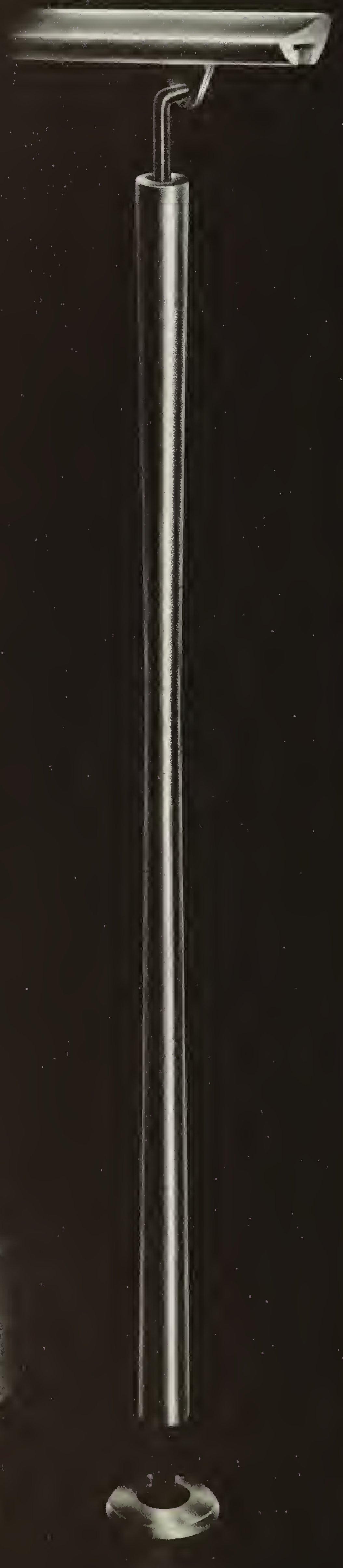
SIDE ELEVATION

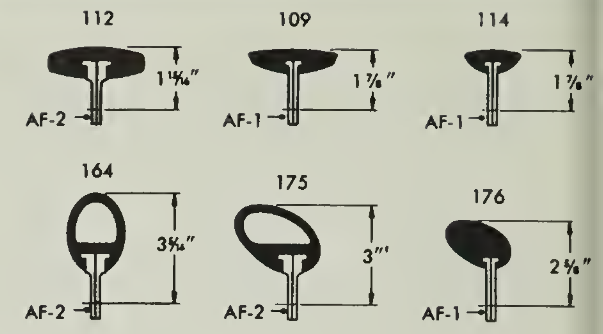


PLAN

SCALE 1 1/2" = 1'-0"






112
1 15/16"
AF-2
109
1 7/8"
AF-1
114
1 7/8"
AF-1
164
3 5/16"
AF-2
175
3"
AF-2
176
2 5/8"
AF-1

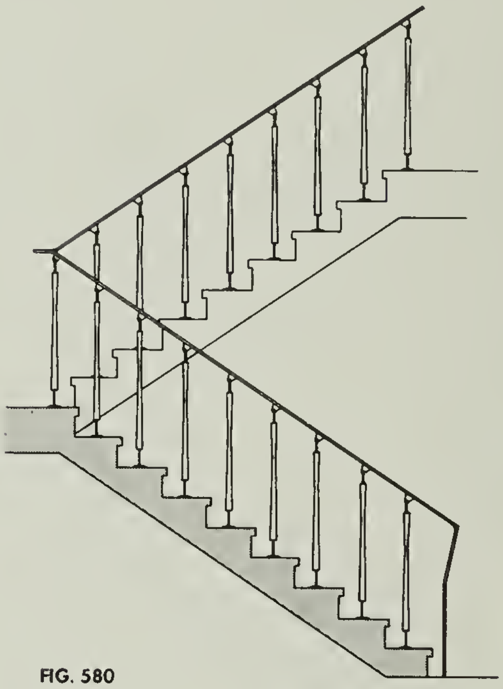


FIG. 580

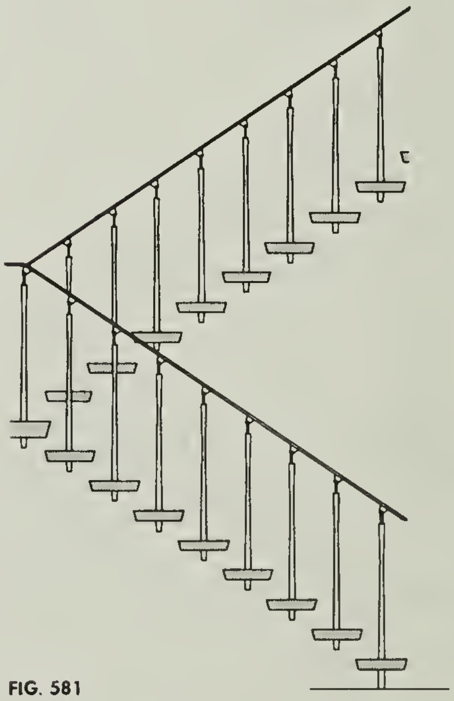


FIG. 581

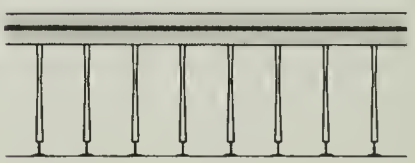


FIG. 582

BALUSTER SPACING—NOT TO EXCEED 1' 0"

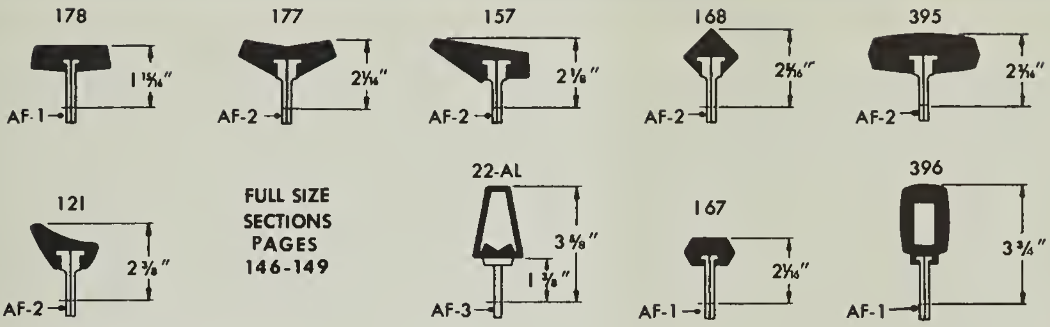
STARTING POSTS—BALUSTER IS NOT TO BE USED AS A STARTING POST. USE POST SP-1 OR RETURN HANDRAIL TO STEP OR FLOOR.

RIGIDITY—THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

NOTE:

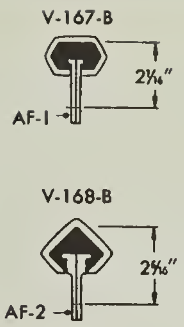
FOR EXTERIOR INSTALLATIONS FABRICATOR IS TO APPLY ADDITIONAL COATS OF PROTECTIVE PAINT TO BLACK STEEL STEMS.

BALUSTER SP-5 Blu

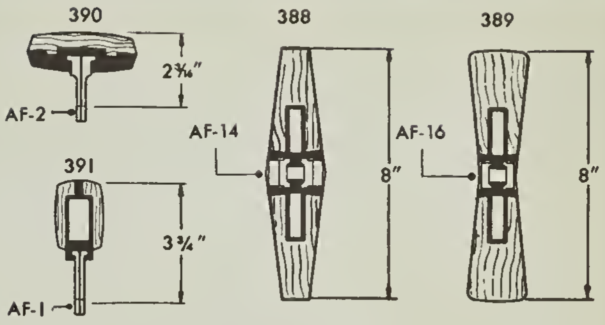

178
1 15/16"
AF-1
177
2 1/16"
AF-2
157
2 1/8"
AF-2
168
2 5/16"
AF-2
395
2 3/16"
AF-2
121
2 3/8"
AF-2
22-AL
3 5/8"
1 3/8"
AF-3
167
2 1/16"
AF-1
396
3 3/4"
AF-1

FULL SIZE SECTIONS PAGES 146-149

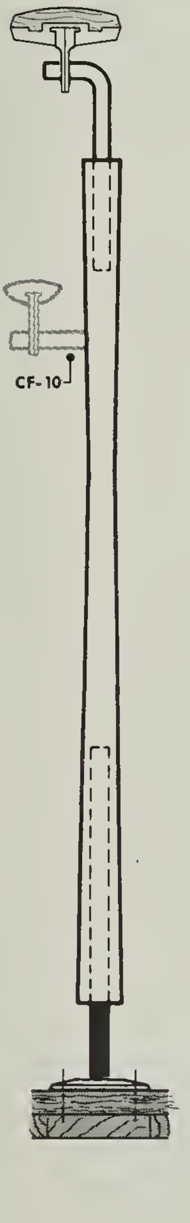
ALUMINUM RAILS


V-167-B
2 1/16"
AF-1
V-168-B
2 5/16"
AF-2

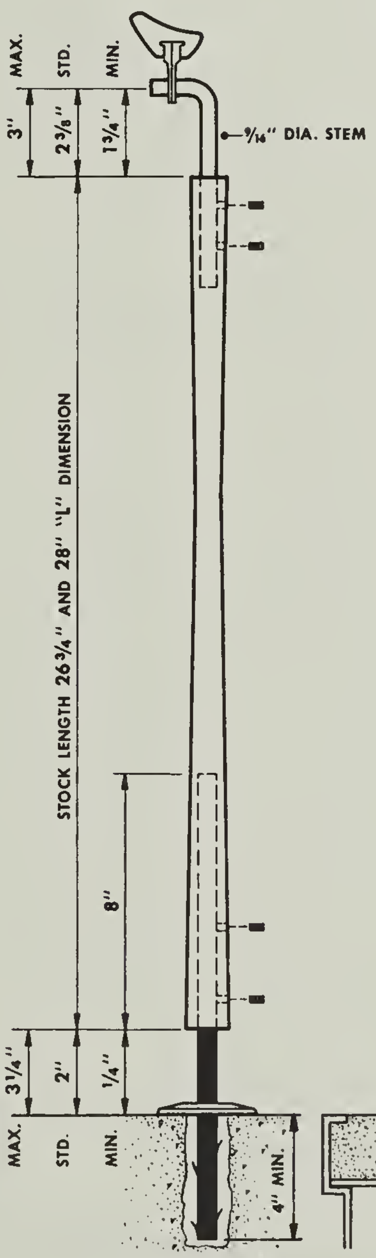
VINYL RAILS


390
2 3/16"
AF-2
391
3 3/4"
AF-1
388
AF-14
8"
389
AF-16
8"

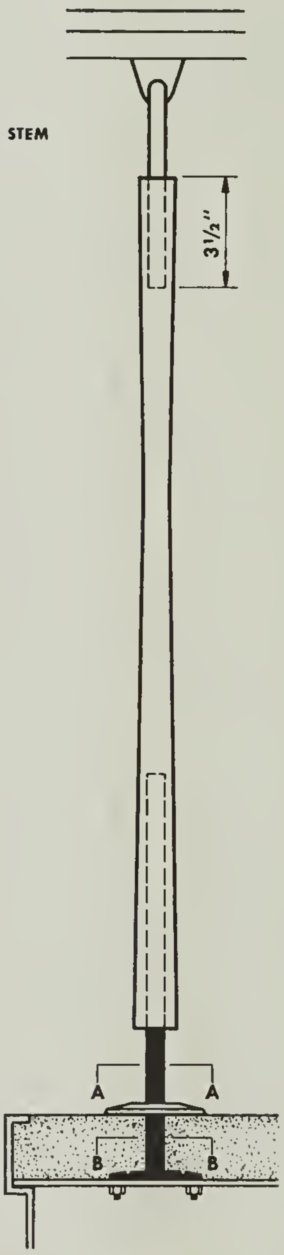
WOOD RAILS



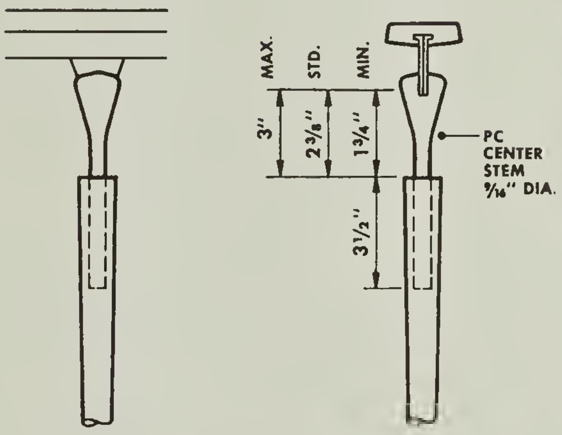
MOUNTING "A"


MAX.
STD.
MIN.
3"
2 3/8"
1 3/4"
9/16" DIA. STEM
STOCK LENGTH 26 3/4" AND 28" "L" DIMENSION
8"
3 1/4"
2"
1/4"
MAX.
STD.
MIN.
4" MIN.

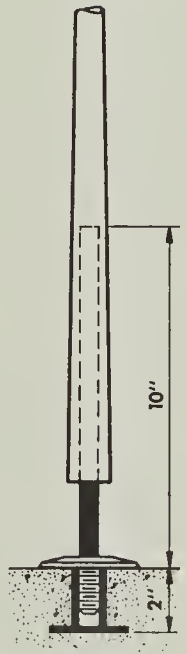
MOUNTING "B"



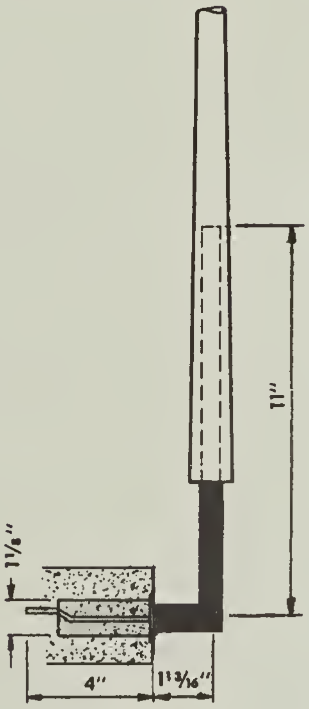
MOUNTING "C"


MAX.
STD.
MIN.
3"
2 3/8"
1 3/4"
3 1/2"
PC CENTER STEM 9/16" DIA.

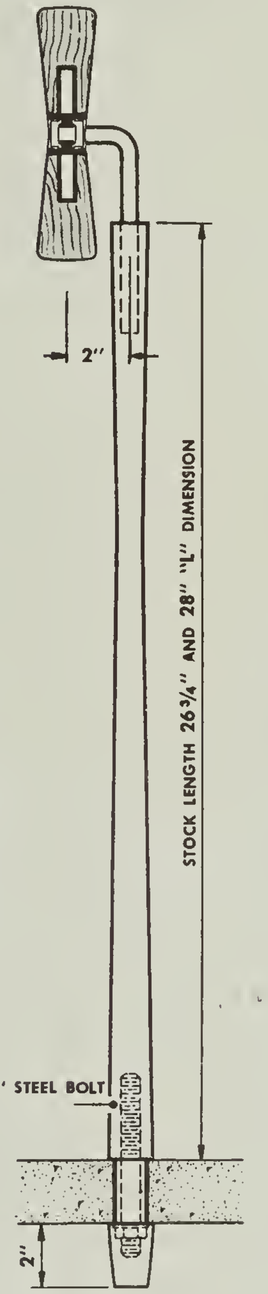
BALUSTER PC-SP-5
FOR STARTING POST USE PC-SP-6



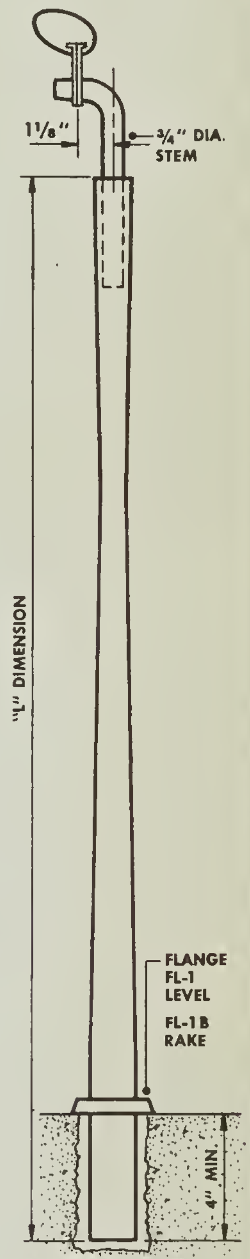
MOUNTING "D"


11"
1 1/8"
4"
1 13/16"

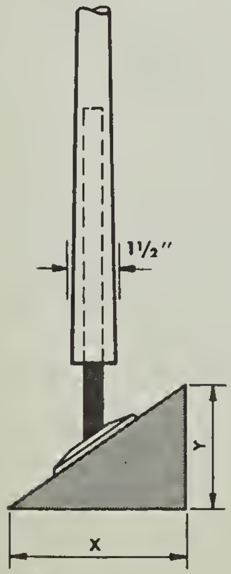
MOUNTING "H"


2"
STOCK LENGTH 26 3/4" AND 28" "L" DIMENSION
5/8" STEEL BOLT
2"

TM-5 THRU MOUNTING

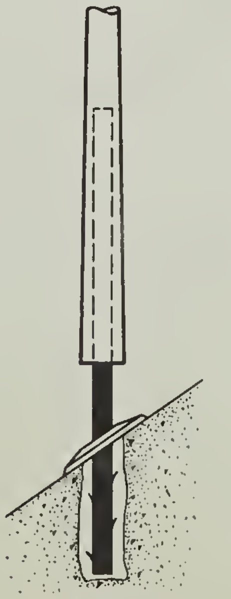

1 1/8"
3/4" DIA. STEM
"L" DIMENSION
FLANGE
FL-1
LEVEL
FL-1B
RAKE
4" MIN.

SP-6 STARTING POST

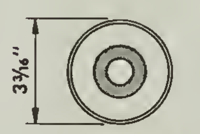


SPECIFY X AND Y

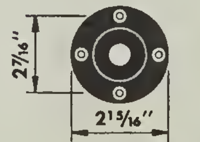
MOUNTING "F"



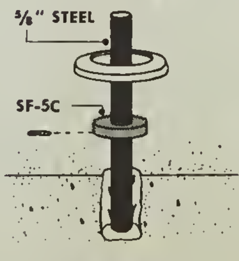
MOUNTING "G"



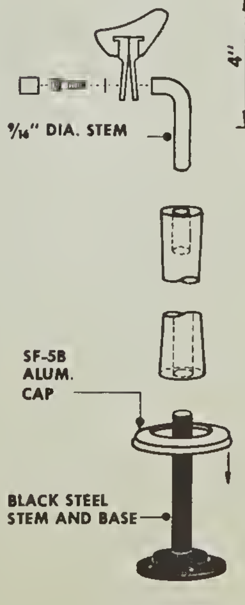
SECTION A-A



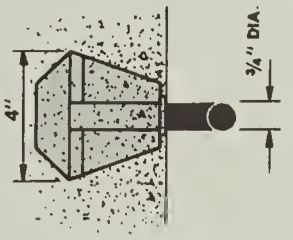
SECTION B-B


5/8" STEEL
SF-5C

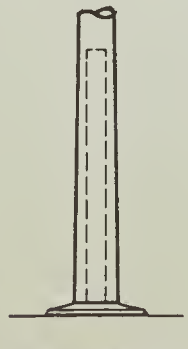
ASSEMBLY


9/16" DIA. STEM
SF-5B
ALUM.
CAP
BLACK STEEL
STEM AND BASE

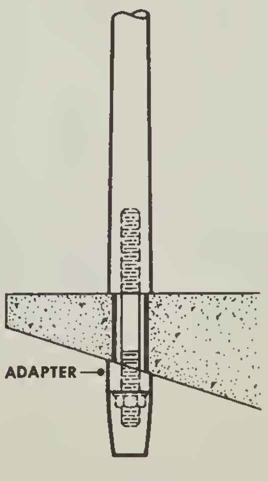
ASSEMBLY



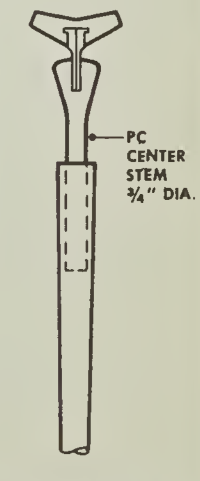
PLAN MOUNTING "H"



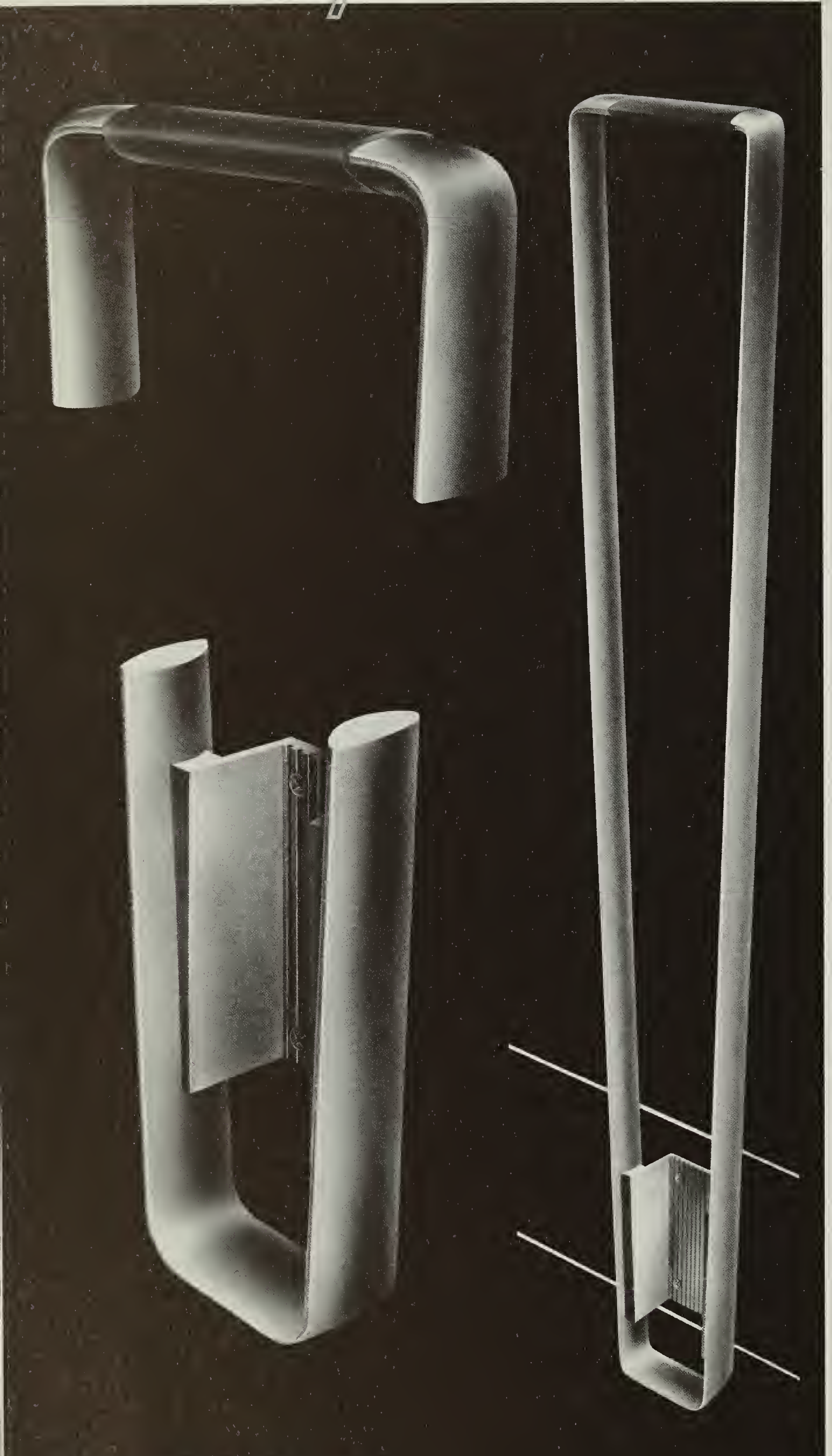
ALTERNATE POSITION

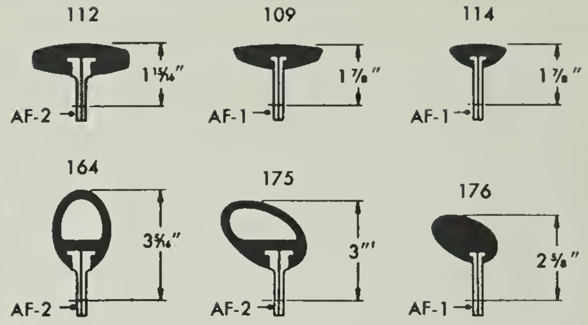


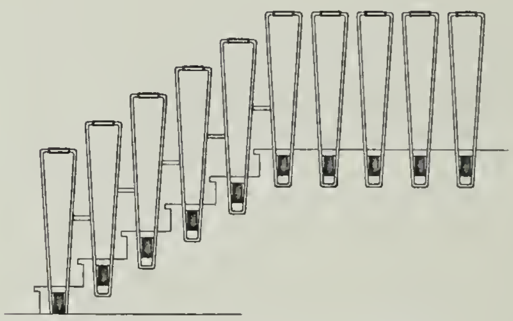
TM MOUNTING
WITH ADAPTER


PC
CENTER
STEM
3/4" DIA.

PC-SP-6 STARTING POST




112
1 15/16"
AF-2
109
1 7/8"
AF-1
114
1 7/8"
AF-1
164
3 5/16"
AF-2
175
3"
AF-2
176
2 5/8"
AF-1



PANEL BALUSTER PB-1 WITH CO-1 CONNECTORS NO TOP RAIL REQUIRED **FIG. 583**

MAXIMUM SPACING 1'-0"

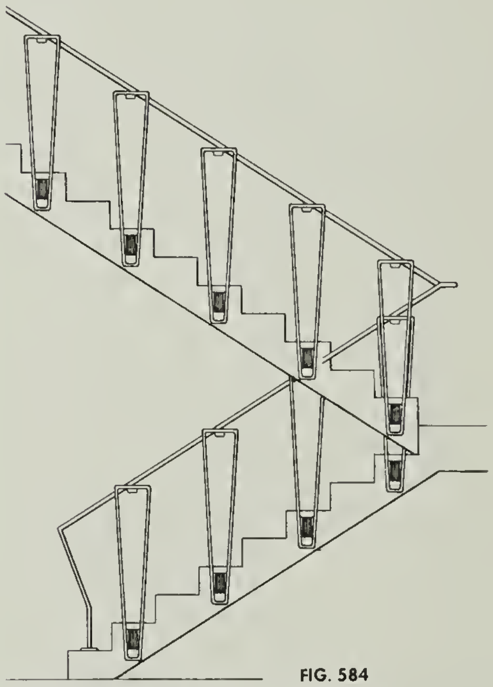
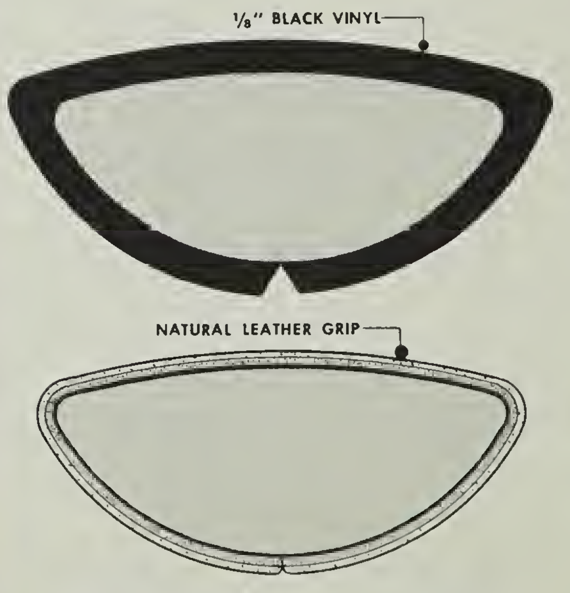


FIG. 584

PANEL BALUSTER PB-1 WITH HANDRAIL

MAXIMUM SPACING 2'-0"


1/8" BLACK VINYL
NATURAL LEATHER GRIP

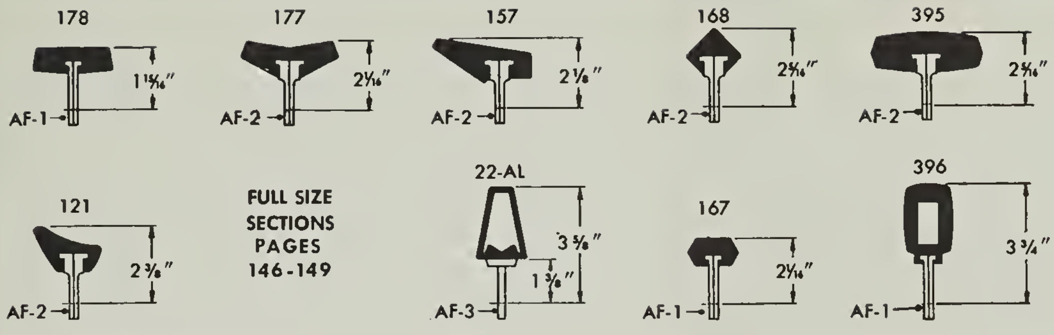
INDIVIDUAL PANEL BALUSTERS WITH LEATHER OR PLASTIC GRIP

SECTION B-B

SECTIONS FULL SIZE

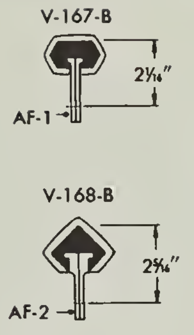
RIGIDITY—THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

DELUXE-LINE

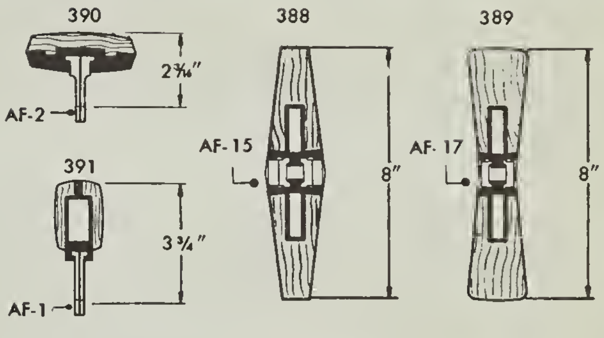

178
1 15/16"
AF-1
177
2 1/16"
AF-2
157
2 1/8"
AF-2
168
2 5/16"
AF-2
395
2 5/16"
AF-2
121
2 3/8"
AF-2
22-AL
3 5/8"
1 3/8"
AF-3
167
2 1/16"
AF-1
396
3 3/4"
AF-1

FULL SIZE
SECTIONS
PAGES
146-149

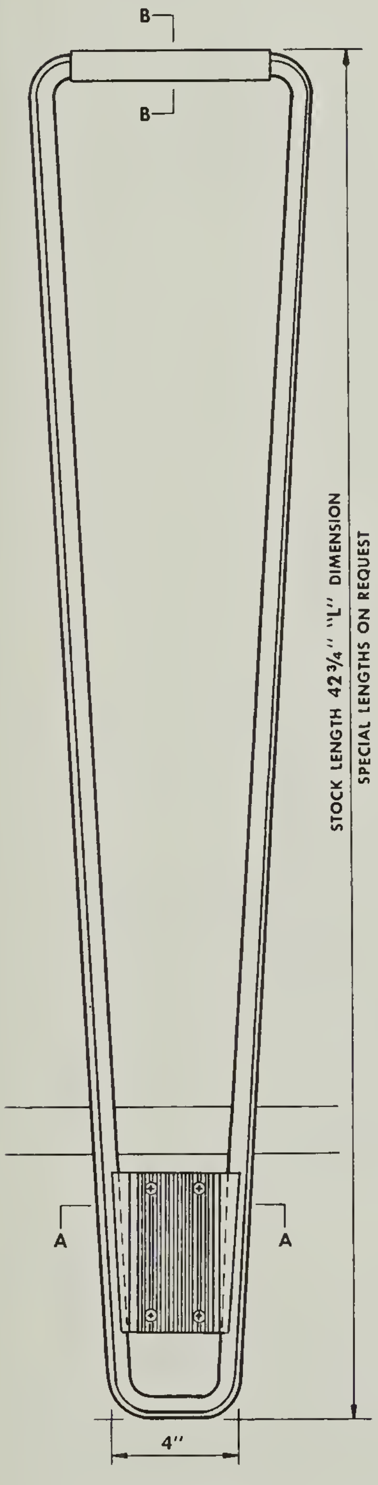
ALUMINUM RAILS


V-167-B
2 1/16"
AF-1
V-168-B
2 5/16"
AF-2

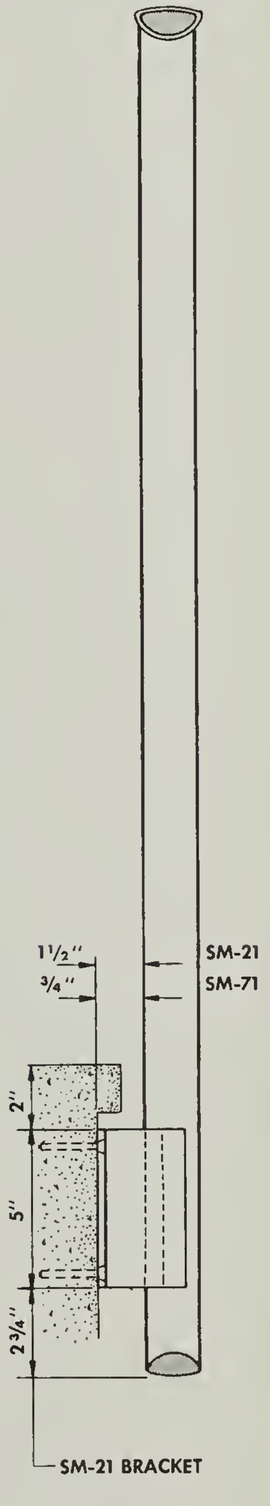
VINYL RAILS


390
2 5/16"
AF-2
391
3 3/4"
AF-1
388
AF-15
8"
389
AF-17
8"

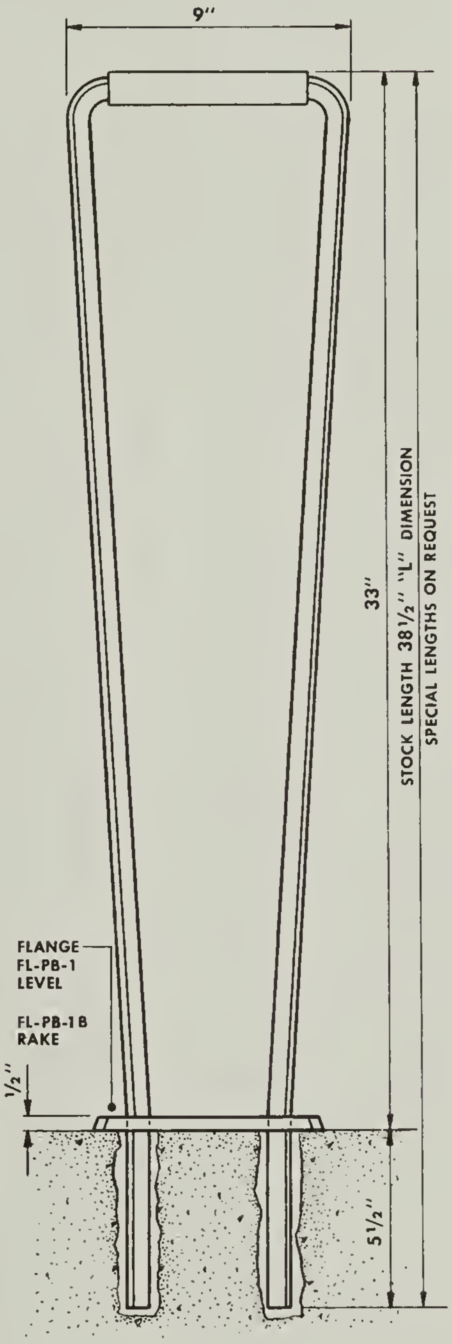
WOOD RAILS


B
B
A
A
4"
STOCK LENGTH 42 3/4" "L" DIMENSION
SPECIAL LENGTHS ON REQUEST

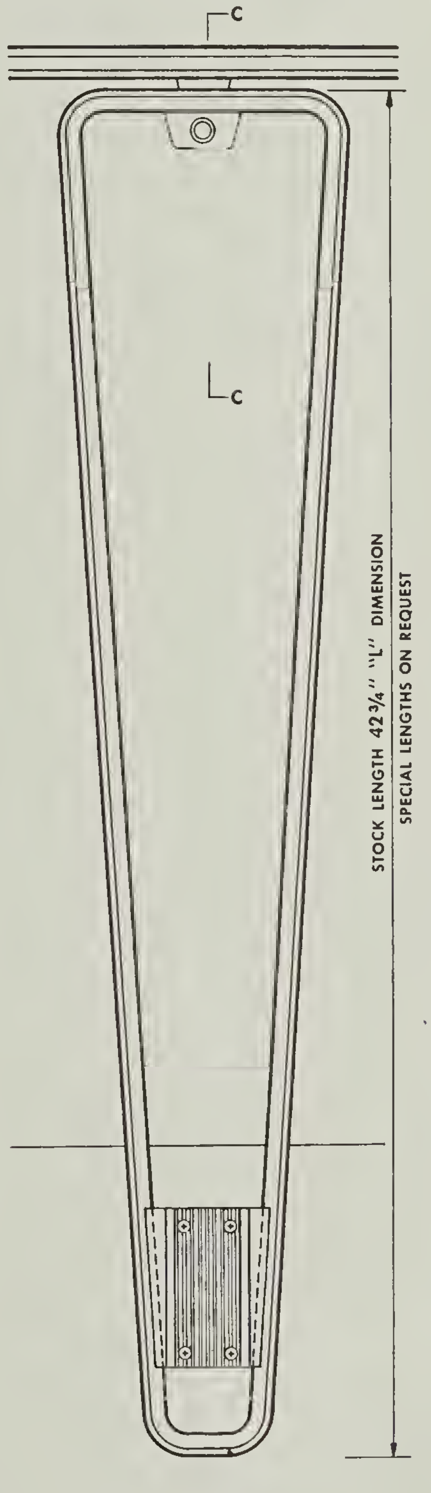
SIDE ELEVATION


1 1/2"
3/4"
SM-21
SM-71
2"
5"
2 3/4"

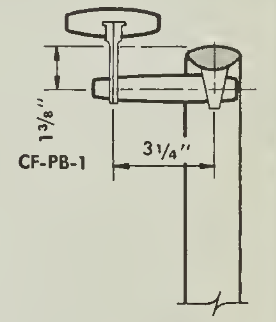
SM-21 BRACKET


9"
33"
STOCK LENGTH 38 1/2" "L" DIMENSION
SPECIAL LENGTHS ON REQUEST
FLANGE
FL-PB-1
LEVEL
FL-PB-1B
RAKE
1/2"
5 1/2"

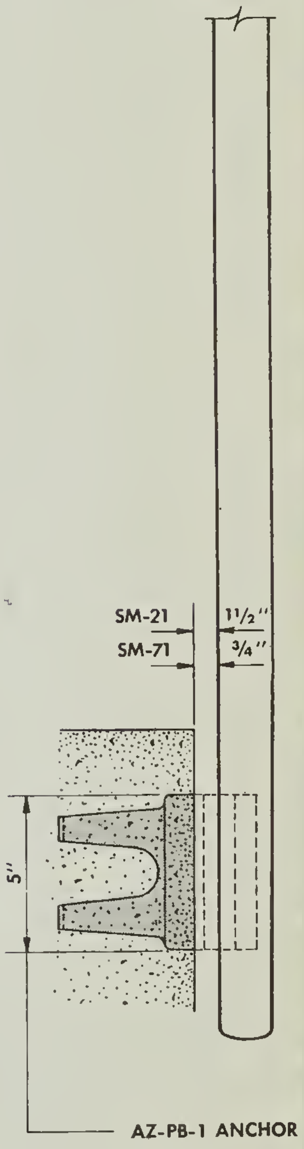
MOUNTING—A


C
C
STOCK LENGTH 42 3/4" "L" DIMENSION
SPECIAL LENGTHS ON REQUEST

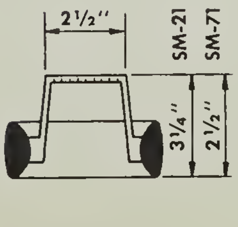
PB-1-H WITH
APPLIED HANDRAIL


1 3/8"
3 1/4"
CF-PB-1

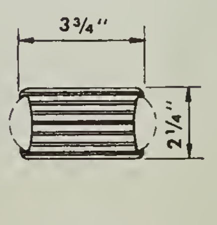
SECTION C-C


SM-21
SM-71
1 1/2"
3/4"
5"

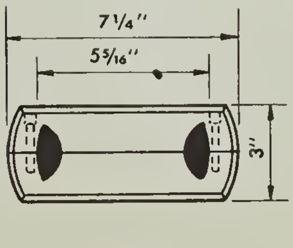
AZ-PB-1 ANCHOR


2 1/2"
SM-21
SM-71
3 1/4"
2 1/2"

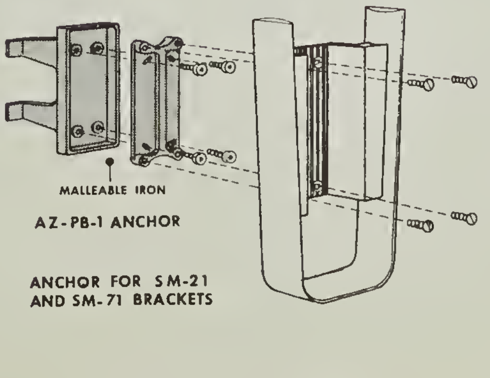
SECTION A-A

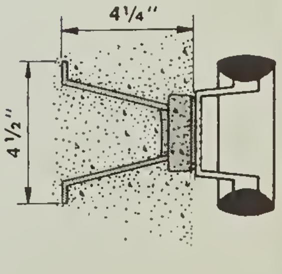


CO-1 CONNECTOR
IN 2 PARTS

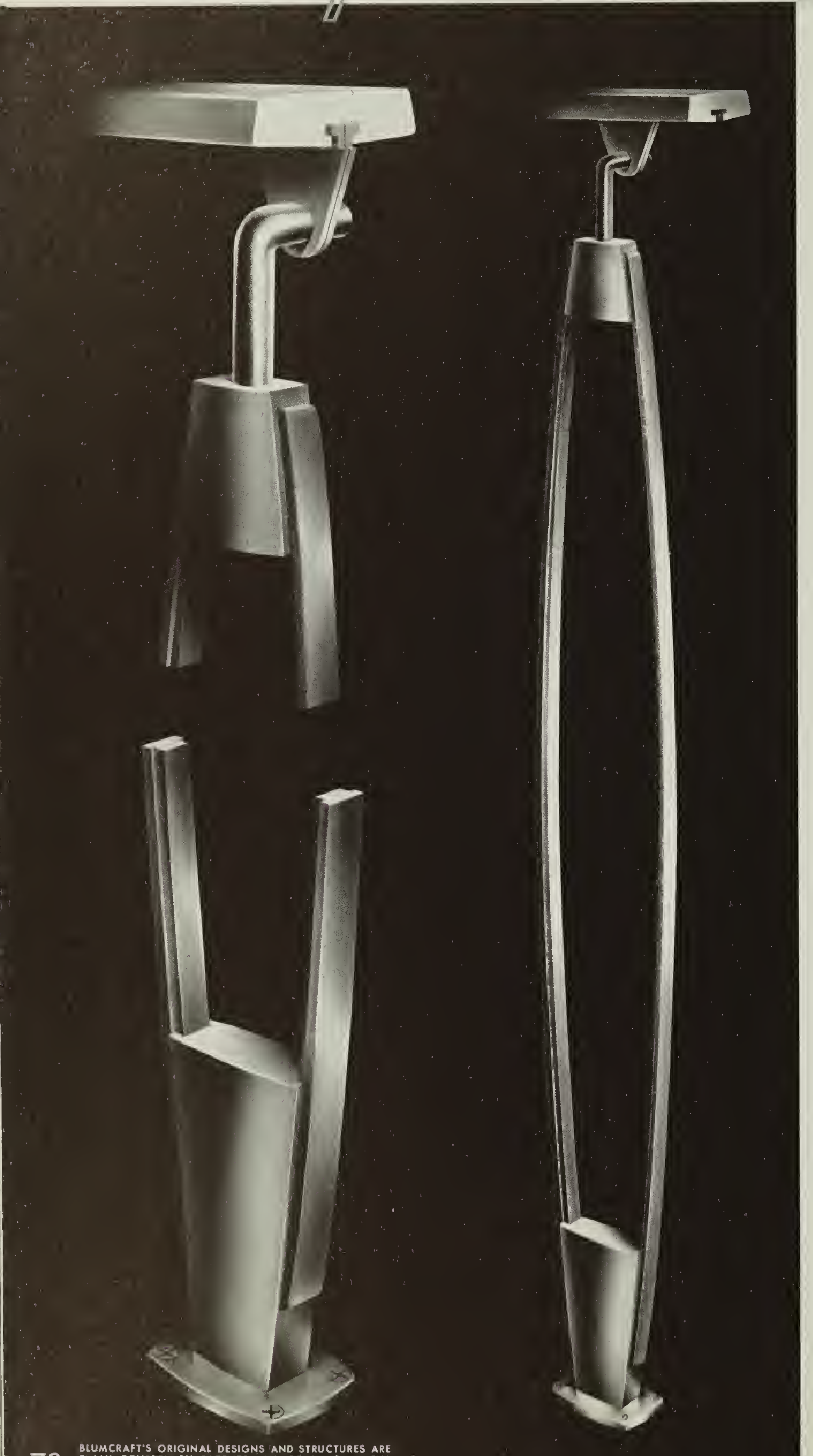


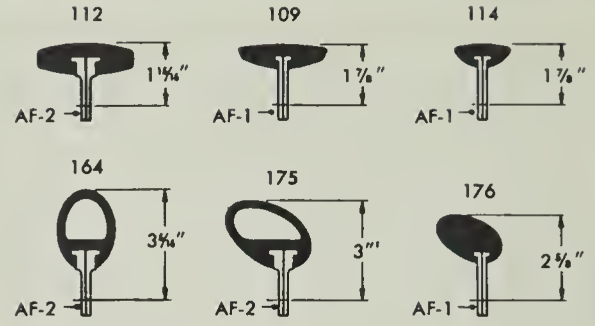
FL-PB-1 FLANGE
IN 2 PARTS


MALLEABLE IRON
AZ-PB-1 ANCHOR
ANCHOR FOR SM-21
AND SM-71 BRACKETS



ASSEMBLY OF AZ-PB-1 ANCHOR




112
1 11/16″
AF-2
109
1 7/8″
AF-1
114
1 7/8″
AF-1
164
3 5/16″
AF-2
175
3″
AF-2
176
2 5/8″
AF-1

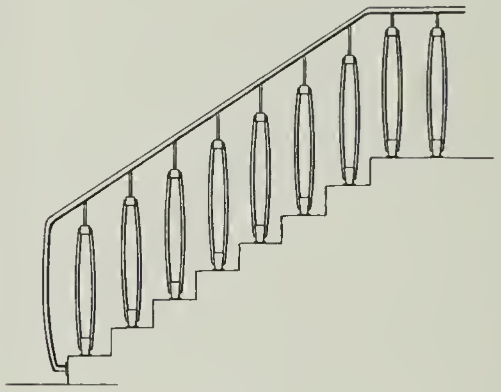


FIG. 585

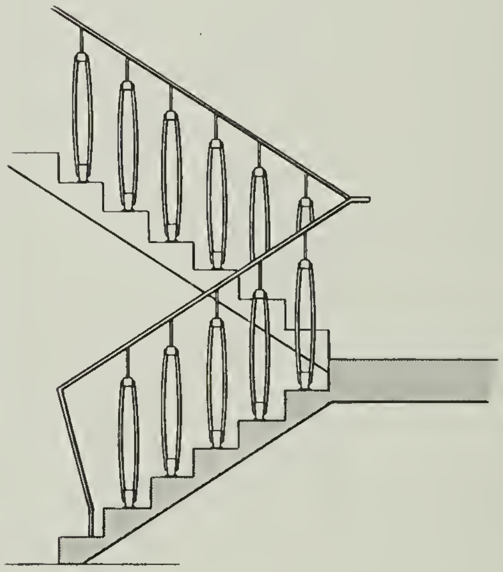


FIG. 586

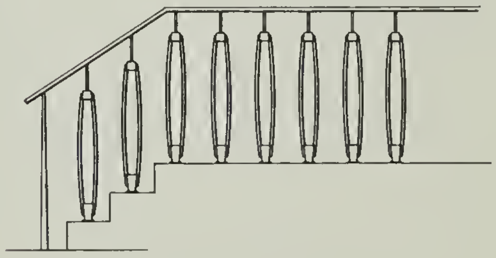
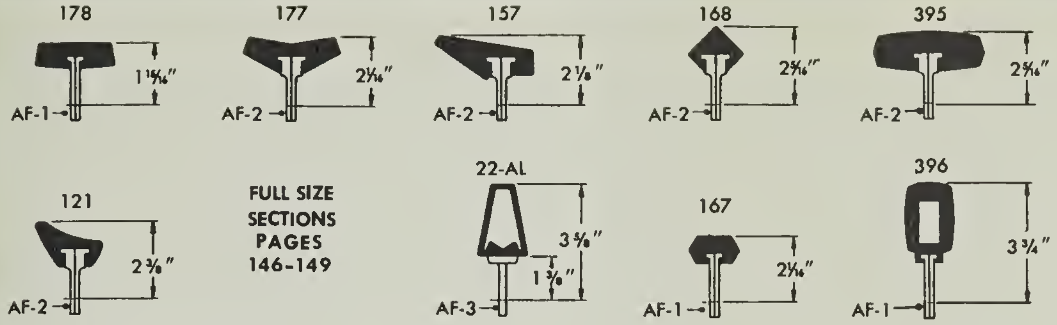


FIG. 587

BALUSTER SPACING—NOT TO EXCEED 1′-0″

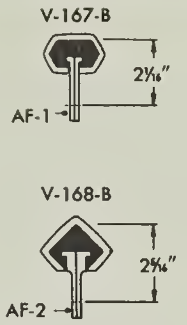
STARTING POSTS—BALUSTER IS NOT TO BE USED AS A STARTING POST. USE POST SP-1 OR RETURN HANDRAIL TO STEP OR FLOOR.

RIGIDITY—THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

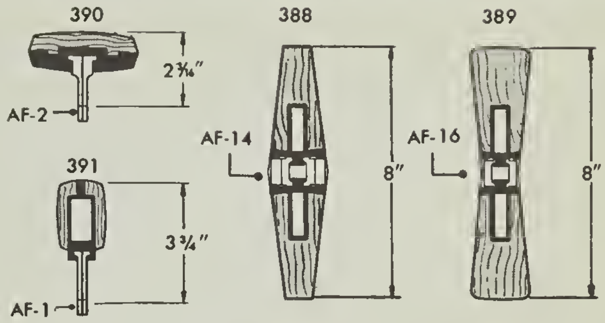

178
1 15/16"
AF-1
177
2 1/16"
AF-2
157
2 1/8"
AF-2
168
2 5/16"
AF-2
395
2 5/16"
AF-2
121
2 3/8"
AF-2
22-AL
3 5/8"
1 5/8"
AF-3
167
2 1/16"
AF-1
396
3 3/4"
AF-1

FULL SIZE
SECTIONS
PAGES
146-149

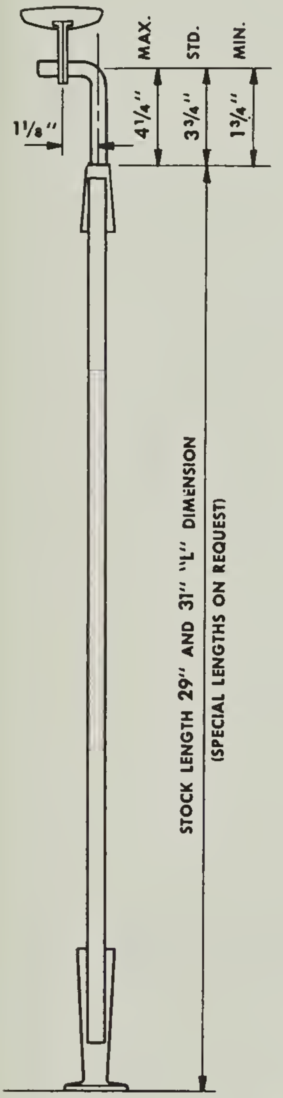
ALUMINUM RAILS


V-167-B
2 1/16"
AF-1
V-168-B
2 9/16"
AF-2

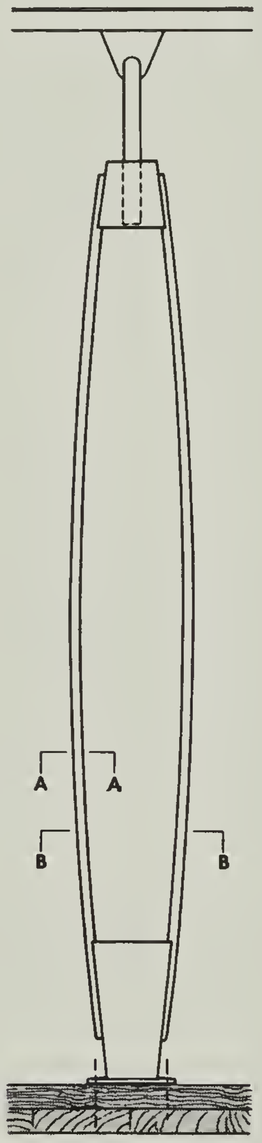
VINYL RAILS


390
2 3/16"
AF-2
391
3 3/4"
AF-1
388
AF-14
8"
389
AF-16
8"

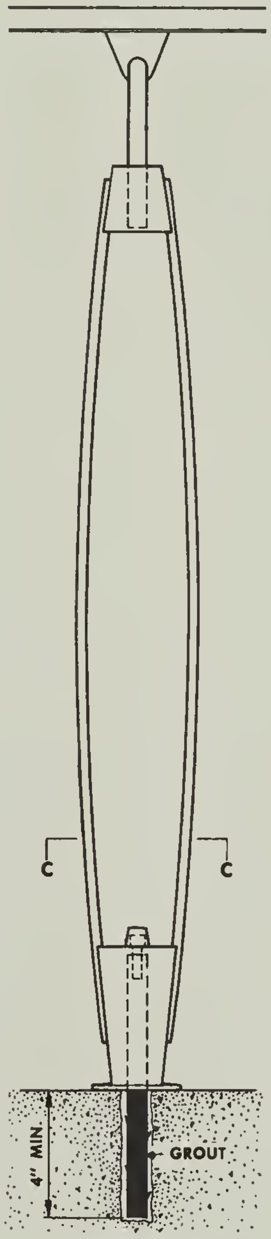
WOOD RAILS


MAX.
STD.
MIN.
1 1/8"
4 1/4"
3 3/4"
1 3/4"
STOCK LENGTH 29" AND 31" "L" DIMENSION
(SPECIAL LENGTHS ON REQUEST)

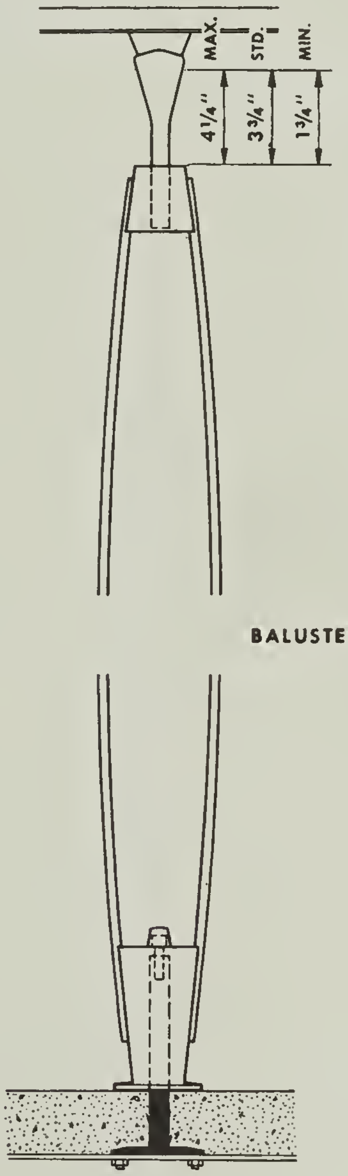
SCALE 1½"=1'-0"



MOUNTING "A"

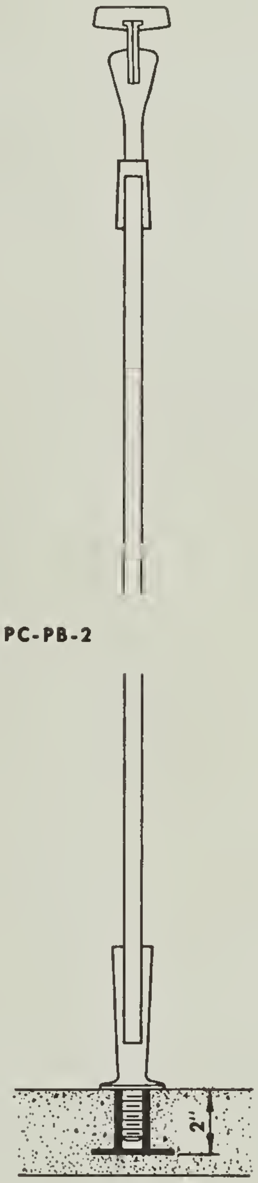

C
C
GROUT
4" MIN.

MOUNTING "B"

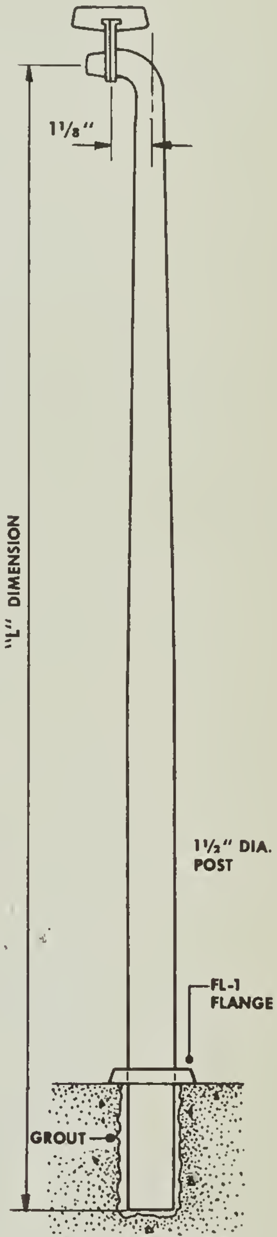

MAX.
STD.
MIN.
4 1/4"
3 3/4"
1 3/4"

BALUSTER PC-PB-2

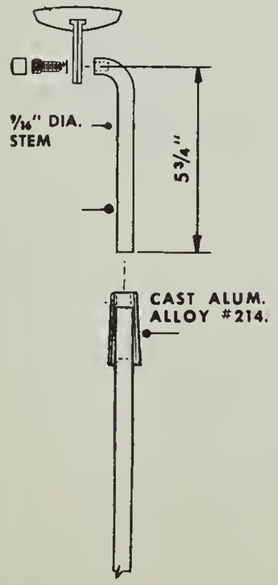
MOUNTING "C"



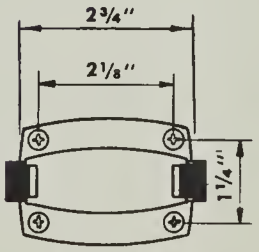
MOUNTING "D"


1 1/8"
"L" DIMENSION
1½" DIA. POST
FL-1 FLANGE
GROUT

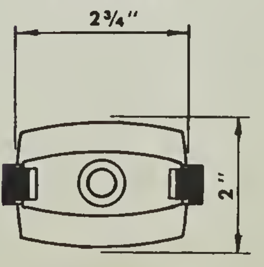
SP-1 STARTING POST


9/16" DIA. STEM
5 3/4"
CAST ALUM. ALLOY #214.

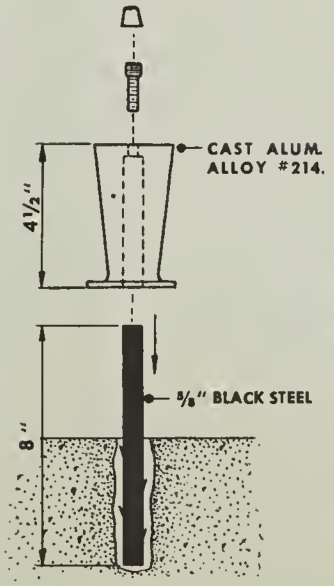
ASSEMBLY



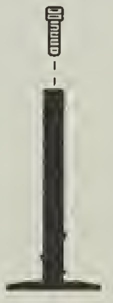
SECTION B-B



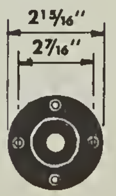
SECTION C-C


CAST ALUM. ALLOY #214.
4 1/2"
5/8" BLACK STEEL
8"

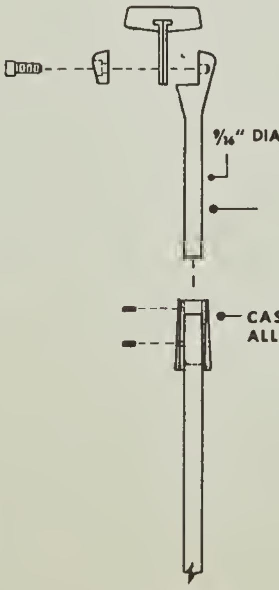
ASSEMBLY



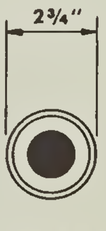
BLACK STEEL STEM AND BASE



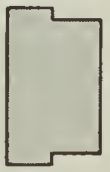
PLAN


9/16" DIA. STEM
CAST ALUM. ALLOY #214.

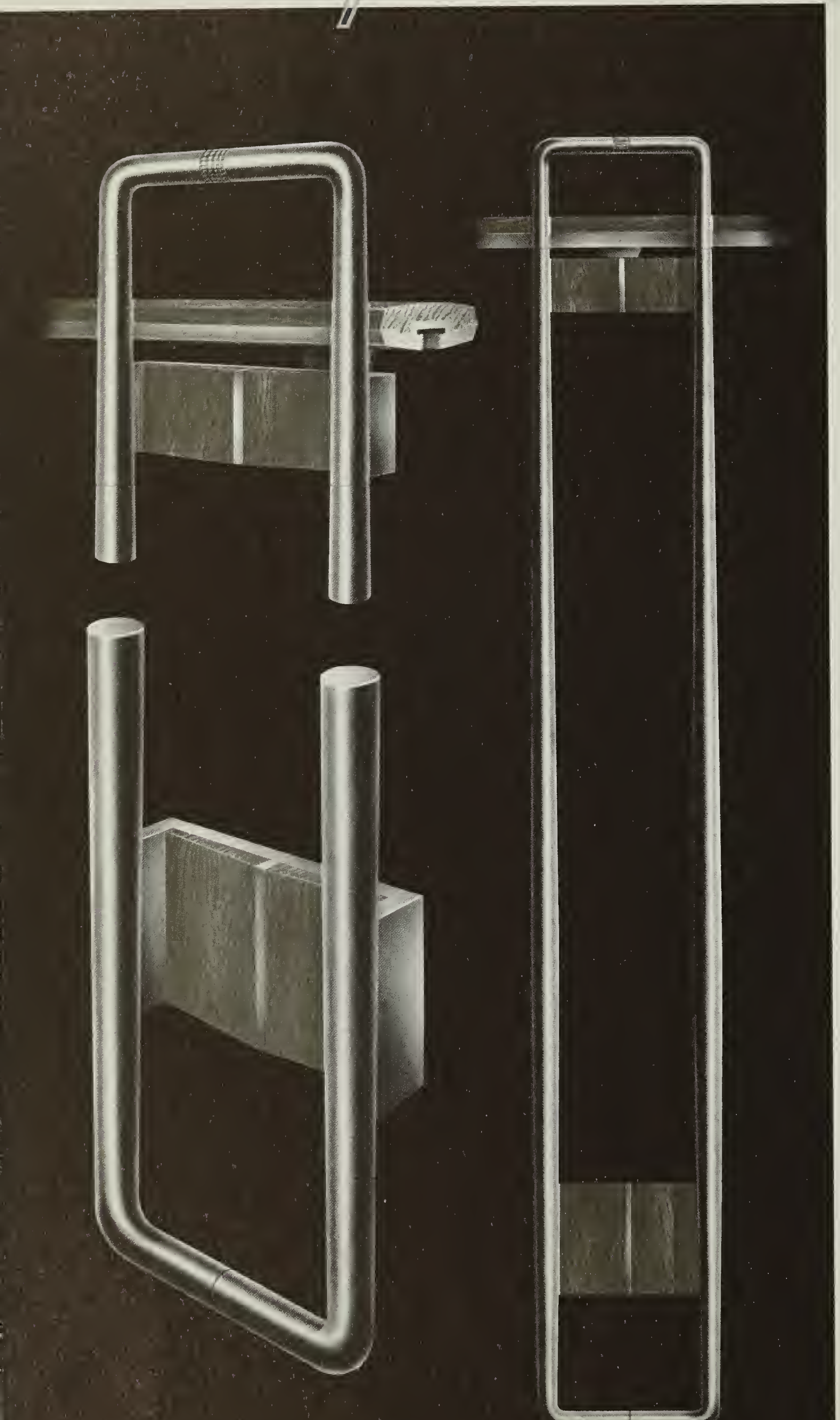
ASSEMBLY
PC CENTER STEM

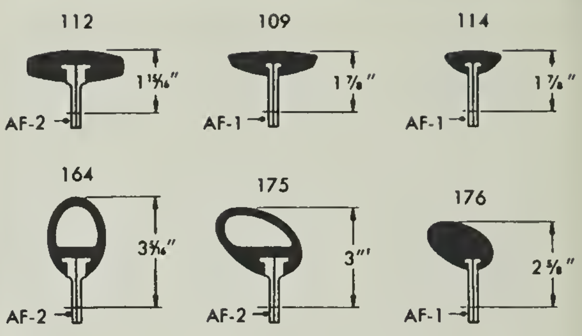


FL-1 FLANGE



SECTION A-A
FULL SIZE




112
1 15/16"
AF-2
109
1 7/8"
AF-1
114
1 7/8"
AF-1
164
3 5/16"
AF-2
175
3"
AF-2
176
2 3/8"
AF-1

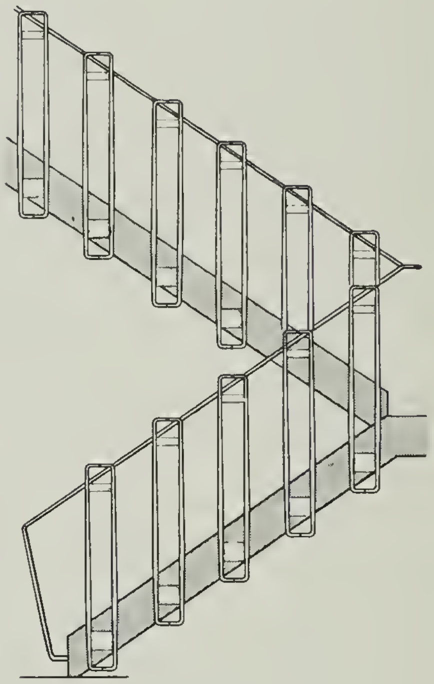


FIG. 588

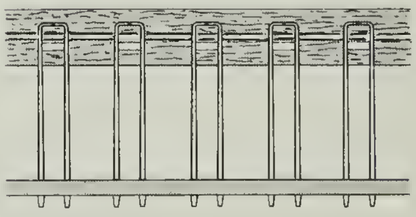


FIG. 589

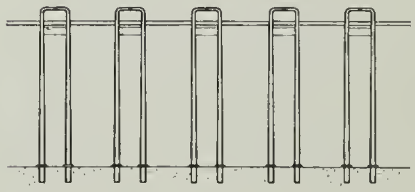


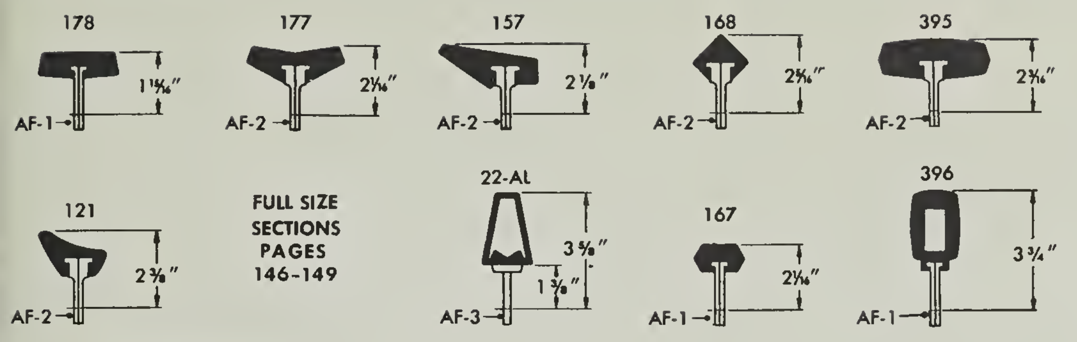
FIG. 590

BALUSTER SPACING—NOT TO EXCEED 2'-0"

WOOD TRIM—SOLID WALNUT WOOD TRIM HAND RUBBED OIL FINISH.

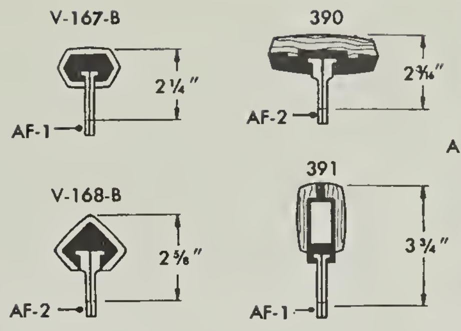
CONCRETE STAIRS—USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE.........

RIGIDITY—THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS ANCHORING IS TO THE STAIR, FLOOR OR WALL.

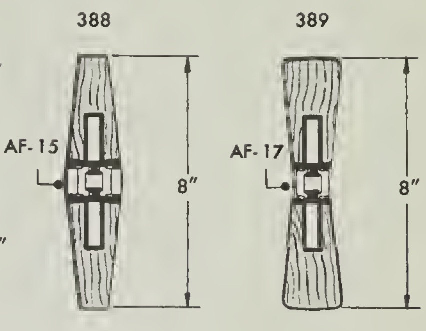

178
1 15/16"
AF-1
177
2 5/16"
AF-2
157
2 1/8"
AF-2
168
2 5/16"
AF-2
395
2 3/16"
AF-2
121
2 3/8"
AF-2
22-AL
3 5/8"
1 3/8"
AF-3
167
2 1/16"
AF-1
396
3 3/4"
AF-1

FULL SIZE SECTIONS PAGES 146-149

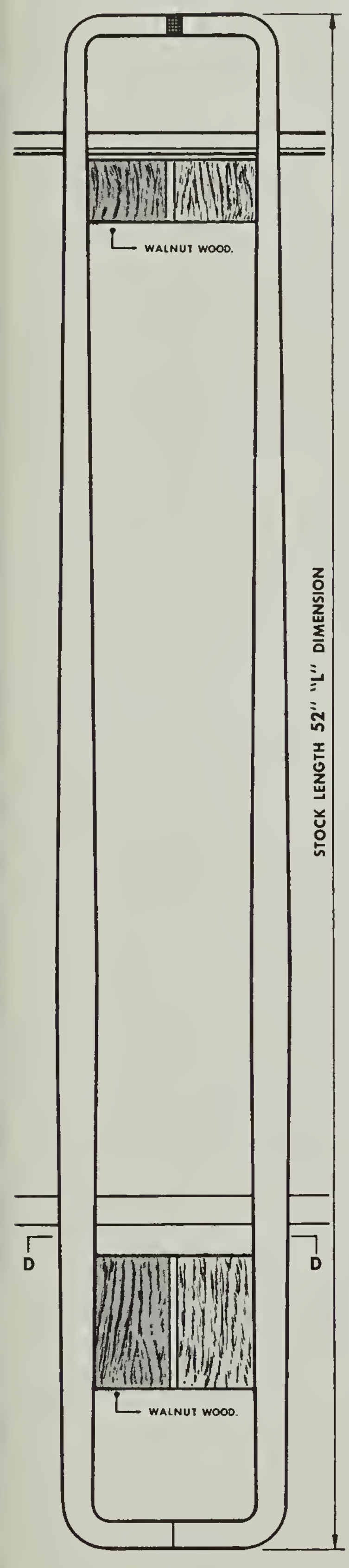
ALUMINUM RAILS


V-167-B
2 1/4"
AF-1
390
2 3/16"
AF-2
V-168-B
2 3/8"
AF-2
391
3 3/4"
AF-1

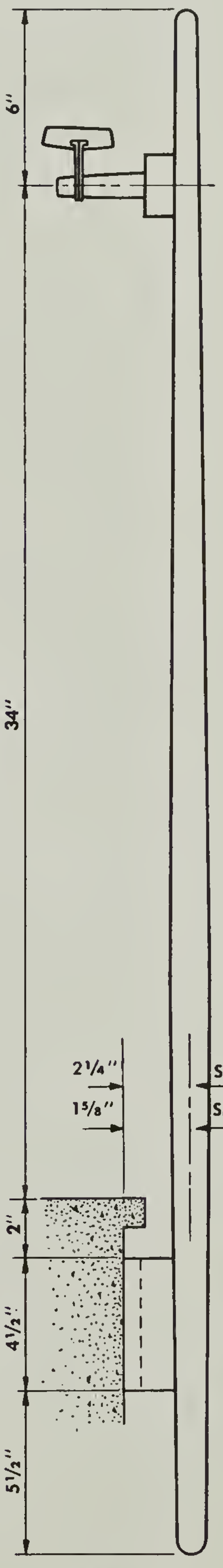
VINYL RAILS


388
AF-15
8"
389
AF-17
8"

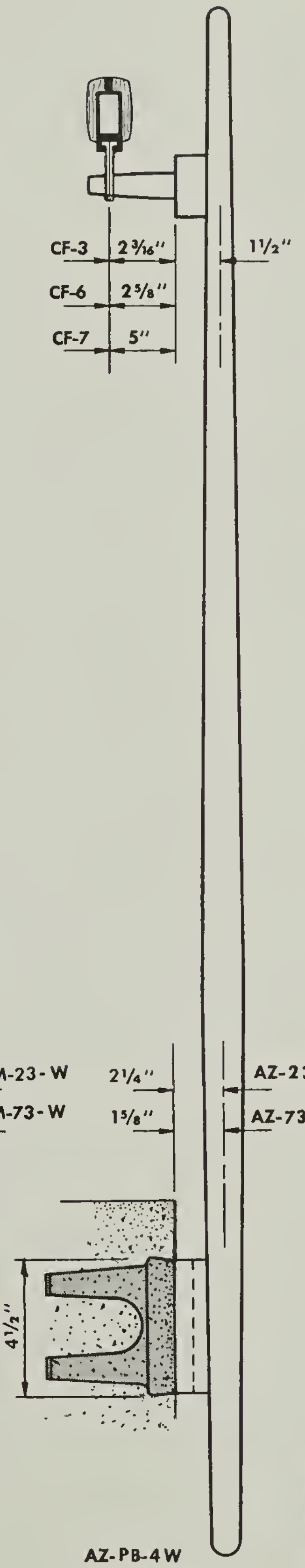
WOOD RAILS


WALNUT WOOD.
STOCK LENGTH 52" "L" DIMENSION
D
D
WALNUT WOOD.

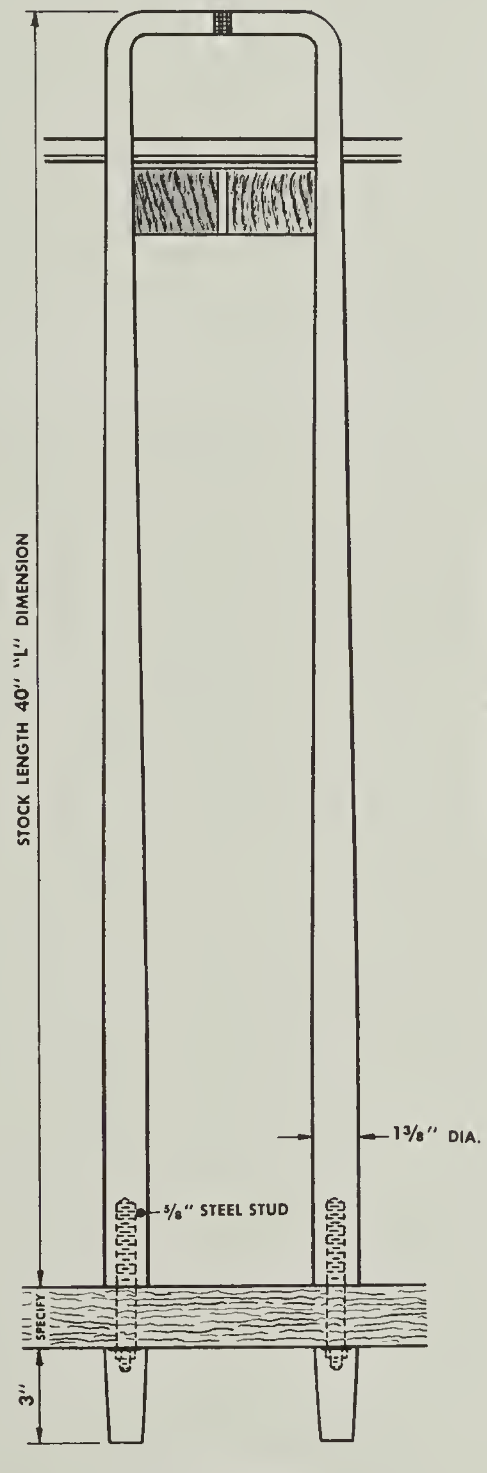
SIDE ELEVATION


6"
34"
2 1/4"
1 5/8"
SM-23-W
SM-73-W
2"
4 1/2"
5 1/2"

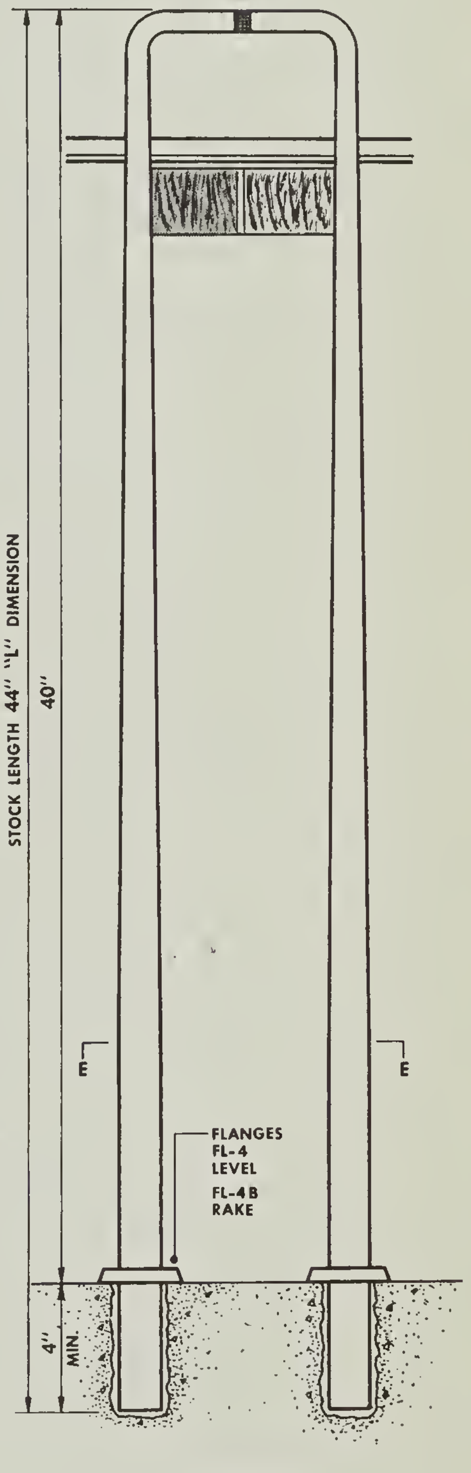
SM-BRACKETS


CF-3 2 3/16"
CF-6 2 5/8"
CF-7 5"
1 1/2"
2 1/4"
1 5/8"
AZ-23-W
AZ-73-W
4 1/2"

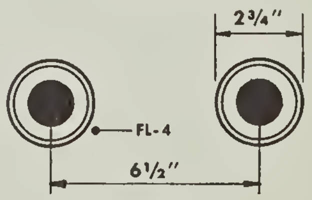
AZ-PB-4W ANCHOR BRACKET


STOCK LENGTH 40" "L" DIMENSION
1 3/8" DIA.
5/8" STEEL STUD
SPECIFY
3"

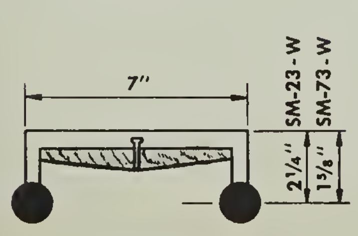
"B" MOUNTING


STOCK LENGTH 44" "L" DIMENSION
40"
E
E
FLANGES
FL-4
LEVEL
FL-4B
RAKE
4" MIN.

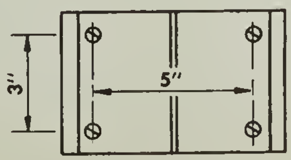
"A" MOUNTING



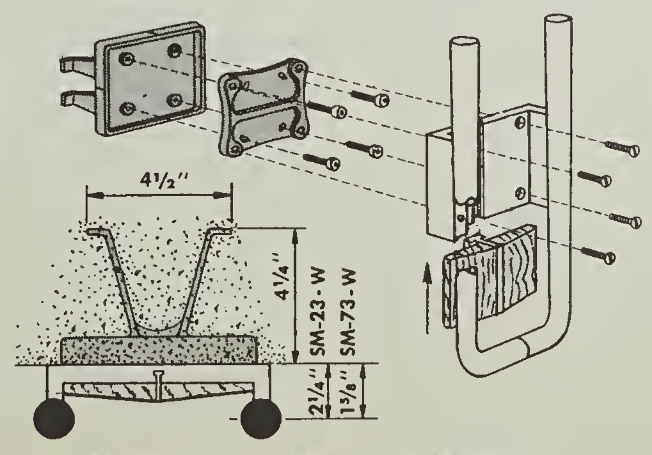
SECTION E-E


7"
SM-23-W
SM-73-W
2 1/4"
1 5/8"

SECTION D-D

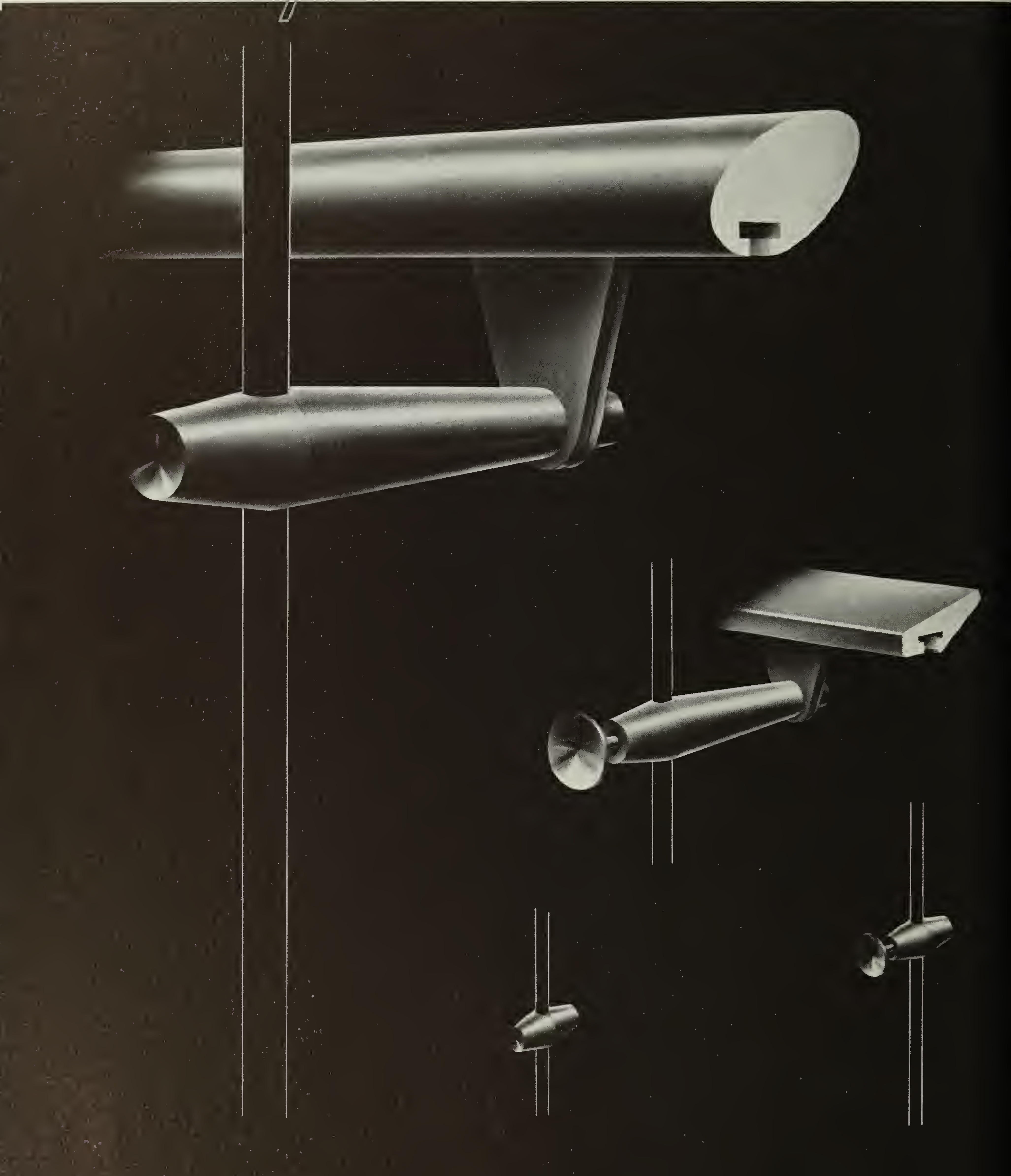


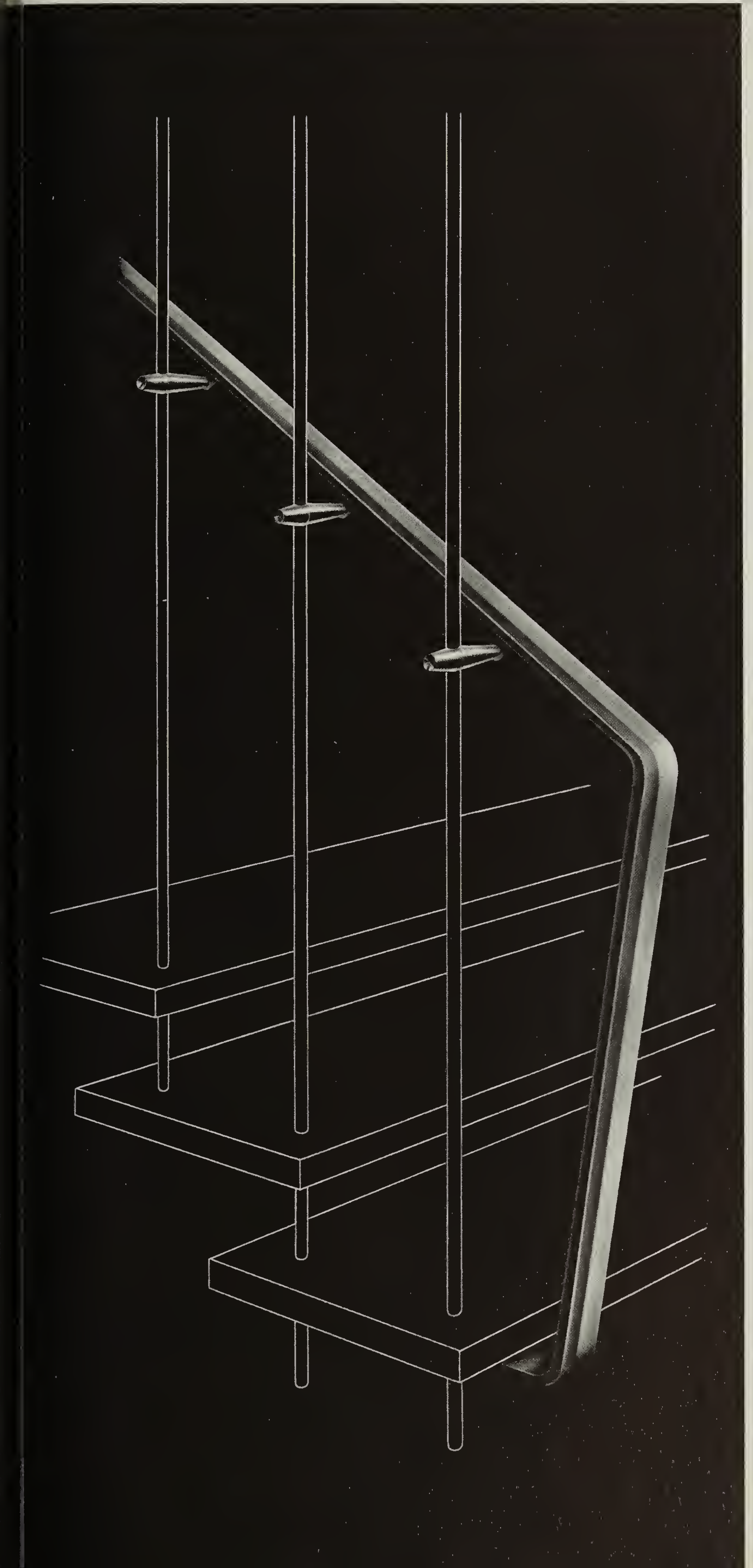
SM-BRACKET


4 1/2"
4 1/4"
SM-23-W
SM-73-W
2 1/4"
1 5/8"

ASSEMBLY OF AZ-PB-4 ANCHOR

SCALE 1½"=1'-0"





ALUMINUM Rod coupling-supports for floating rails and decorative facets.

Permits decorative treatment of floating stair rods with facets arranged in random patterns.

Rod coupling can be applied after hanging stair rods have been installed, without drilling, yet maintain the complete structural value of the stair rods.

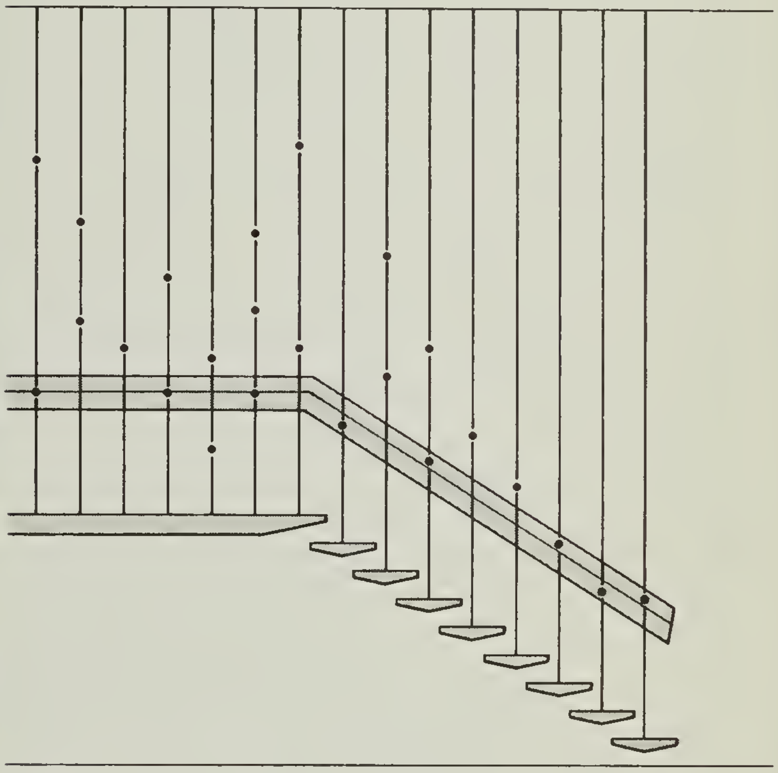


FIG. 500

DETAILS

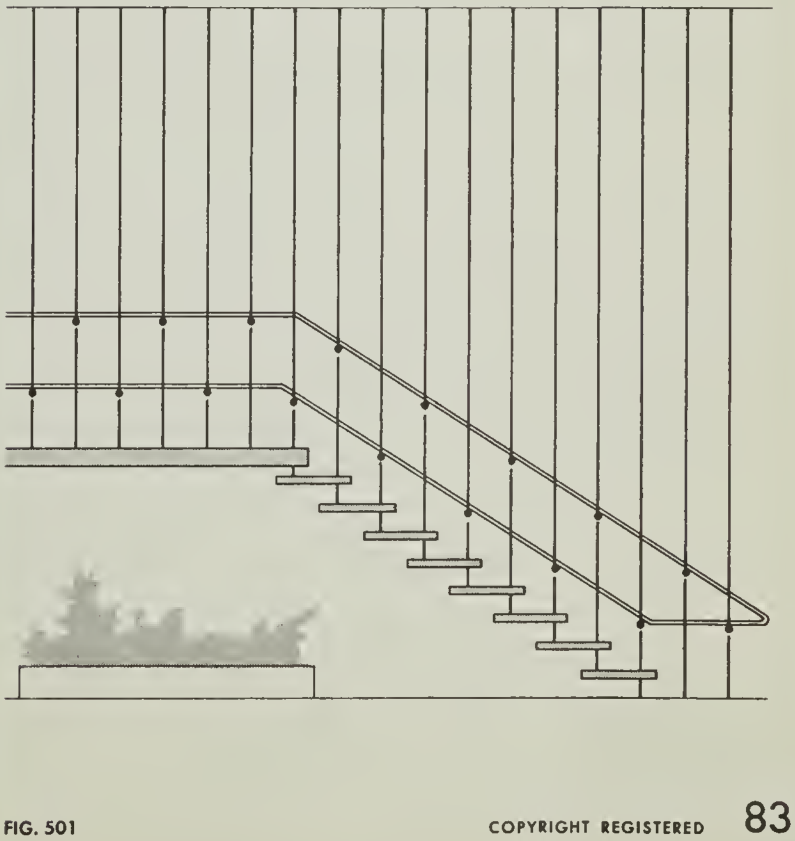
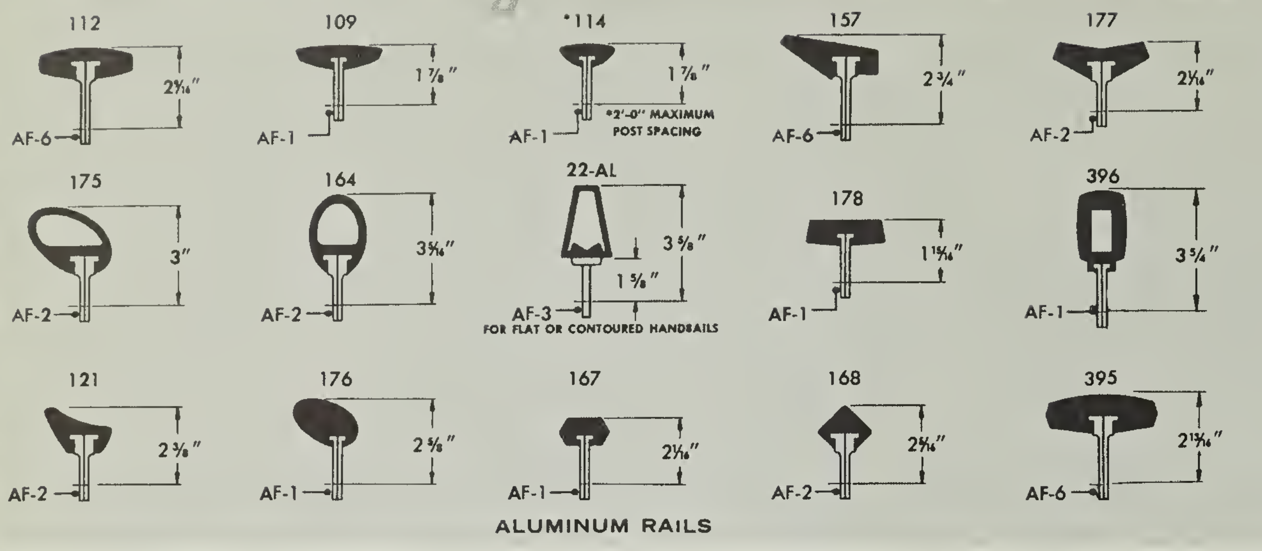
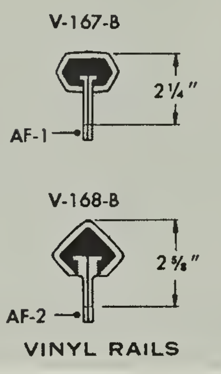


FIG. 501

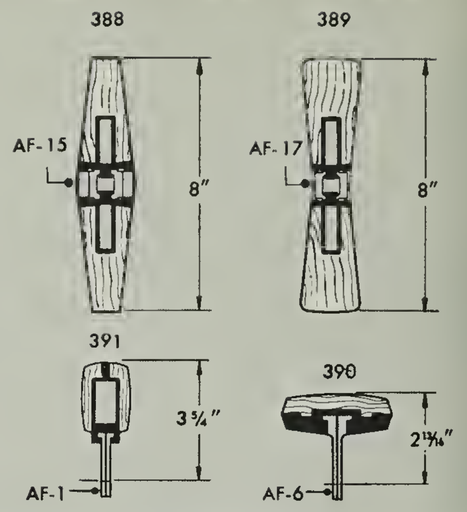

112
2⁹⁄₁₆″
AF-6
109
1 ⁷⁄₈″
AF-1
*114
1 ⁷⁄₈″
*2′-0″ MAXIMUM POST SPACING
AF-1
157
2 ³⁄₄″
AF-6
177
2¹⁄₁₆″
AF-2
175
3″
AF-2
164
3⁵⁄₁₆″
AF-2
22-AL
3 ⁵⁄₈″
1 ⁵⁄₈″
AF-3
FOR FLAT OR CONTOURED HANDRAILS
178
1¹⁵⁄₁₆″
AF-1
396
3 ³⁄₄″
AF-1
121
2 ³⁄₈″
AF-2
176
2 ⁵⁄₈″
AF-1
167
2¹⁄₁₆″
AF-1
168
2⁵⁄₁₆″
AF-2
395
2¹³⁄₁₆″
AF-6

ALUMINUM RAILS

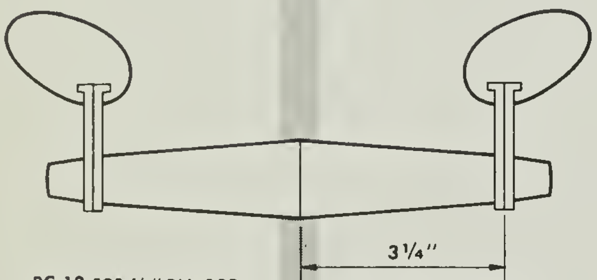
FULL SIZE SECTIONS
PAGES — 146-149


V-167-B
2 ¹⁄₄″
AF-1
V-168-B
2 ⁵⁄₈″
AF-2

VINYL RAILS

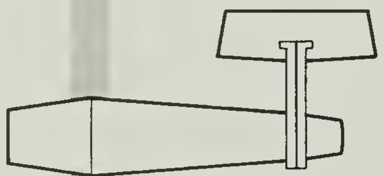

388
AF-15
8″
389
AF-17
8″
391
3 ³⁄₄″
AF-1
390
2¹³⁄₁₆″
AF-6

WOOD RAILS



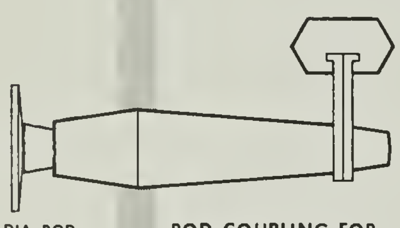
RC-12 FOR ¹⁄₂″ DIA. ROD
RC-22 FOR ⁵⁄₈″ DIA. ROD
RC-32 FOR ³⁄₄″ DIA. ROD

ROD COUPLING FOR
DOUBLE HANDRAILS



RC-10 FOR ¹⁄₂″ DIA. ROD
RC-20 FOR ⁵⁄₈″ DIA. ROD
RC-30 FOR ³⁄₄″ DIA. ROD

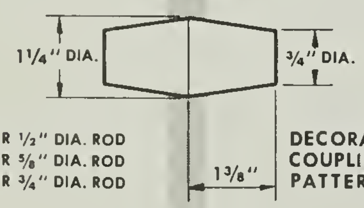
ROD COUPLING FOR
SINGLE HANDRAILS



STYLE R, O,
OR C, FACET

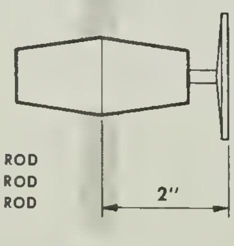
RC-11 FOR ¹⁄₂″ DIA. ROD
RC-21 FOR ⁵⁄₈″ DIA. ROD
RC-31 FOR ³⁄₄″ DIA. ROD

ROD COUPLING FOR
SINGLE HANDRAIL
WITH ROUND FACET


1¹⁄₄″ DIA.
³⁄₄″ DIA.
1³⁄₈″

RC-14 FOR ¹⁄₂″ DIA. ROD
RC-24 FOR ⁵⁄₈″ DIA. ROD
RC-34 FOR ³⁄₄″ DIA. ROD

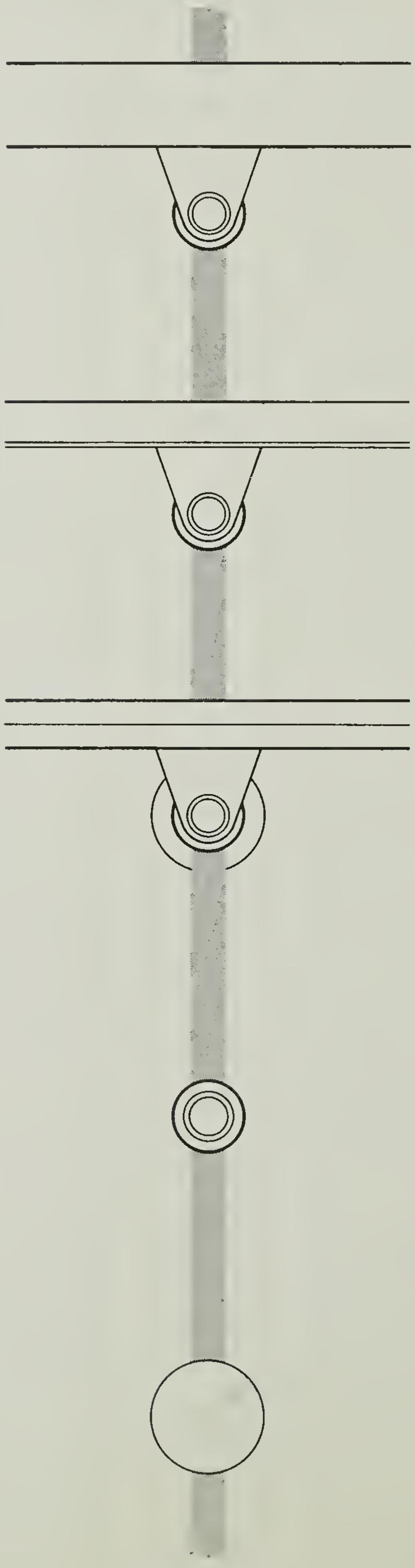
DECORATIVE ROD
COUPLING FOR
PATTERN ARRANGEMENTS



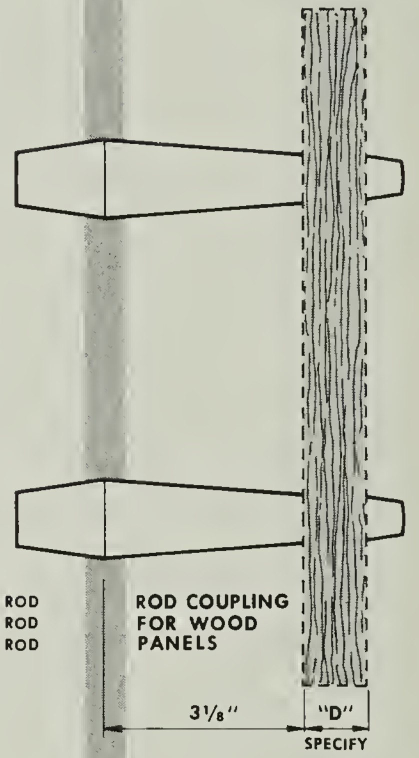
RC-15 FOR ¹⁄₂″ DIA. ROD
RC-25 FOR ⁵⁄₈″ DIA. ROD
RC-35 FOR ³⁄₄″ DIA. ROD

DECORATIVE ROD
COUPLING WITH
ROUND FACET

SIDE ELEVATION

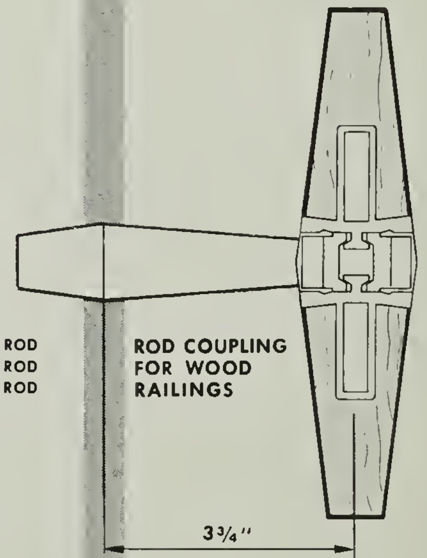


FRONT ELEVATION


3¹⁄₈″
"D"
SPECIFY

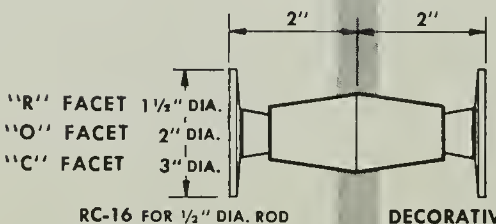
RC-13 FOR ¹⁄₂″ DIA. ROD
RC-23 FOR ⁵⁄₈″ DIA. ROD
RC-33 FOR ³⁄₄″ DIA. ROD

ROD COUPLING
FOR WOOD
PANELS



RC-13 FOR ¹⁄₂″ DIA. ROD
RC-23 FOR ⁵⁄₈″ DIA. ROD
RC-33 FOR ³⁄₄″ DIA. ROD

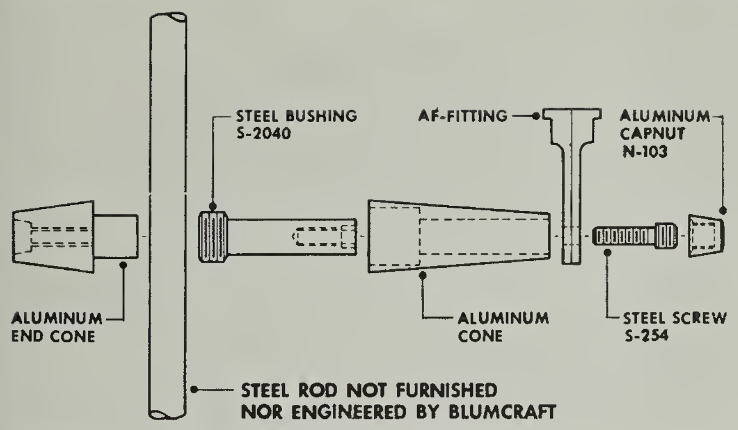
ROD COUPLING
FOR WOOD
RAILINGS


2″
2″
"R" FACET 1¹⁄₂″ DIA.
"O" FACET 2″ DIA.
"C" FACET 3″ DIA.

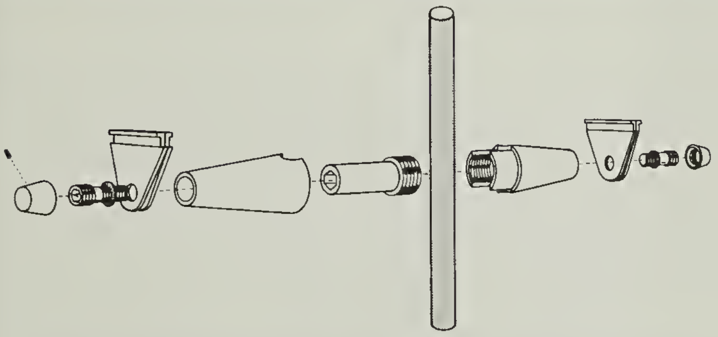
RC-16 FOR ¹⁄₂″ DIA. ROD
RC-26 FOR ⁵⁄₈″ DIA. ROD
RC-36 FOR ³⁄₄″ DIA. ROD

DECORATIVE ROD
COUPLING WITH
ROUND FACETS

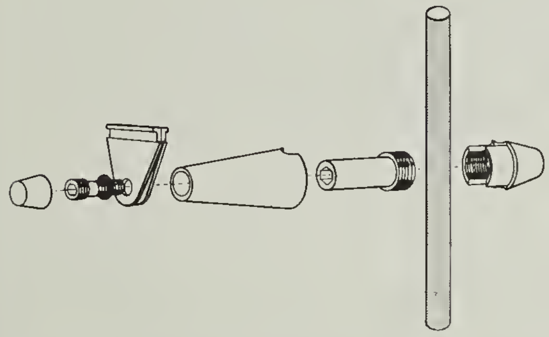
SCALE 3″ = 1′-0″


STEEL BUSHING
S-2040
AF-FITTING
ALUMINUM CAPNUT
N-103
ALUMINUM END CONE
ALUMINUM CONE
STEEL SCREW
S-254
STEEL ROD NOT FURNISHED NOR ENGINEERED BY BLUMCRAFT

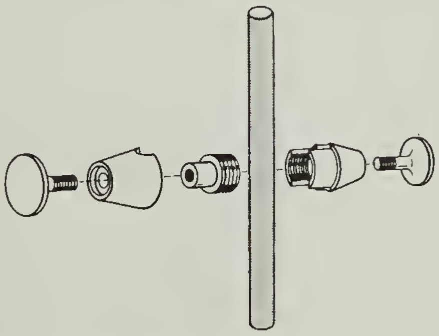
TYPICAL ROD COUPLING ASSEMBLY



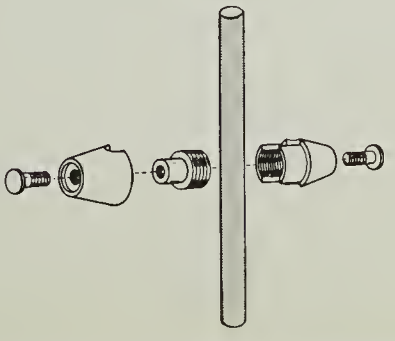
ASSEMBLY OF ROD COUPLING WITH DOUBLE RAIL



ASSEMBLY OF ROD COUPLING WITH SINGLE RAIL



ASSEMBLY OF ROD COUPLING WITH DOUBLE FACET



ASSEMBLY OF DECORATIVE ROD COUPLING FOR PATTERN ARRANGEMENTS

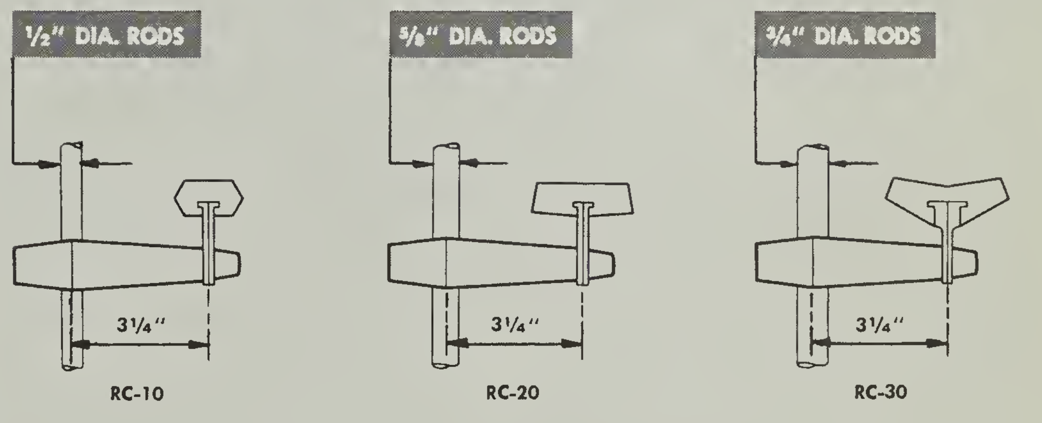
ALUMINUM ROD COUPLING-SUPPORTS—AVAILABLE FOR ½", ⅝" AND ¾" DIAMETER STAIR SUPPORTING RODS.

PATTERN ARRANGEMENTS—CAN BE DEVELOPED AND APPLIED AFTER THE RODS AND STAIRS ARE IN PLACE

ENGINEERED ROD COUPLINGS—ARE APPLIED WITHOUT DRILLING AND WITHOUT LOSS OF STRUCTURAL VALUE TO THE SUPPORTING STAIR RODS.

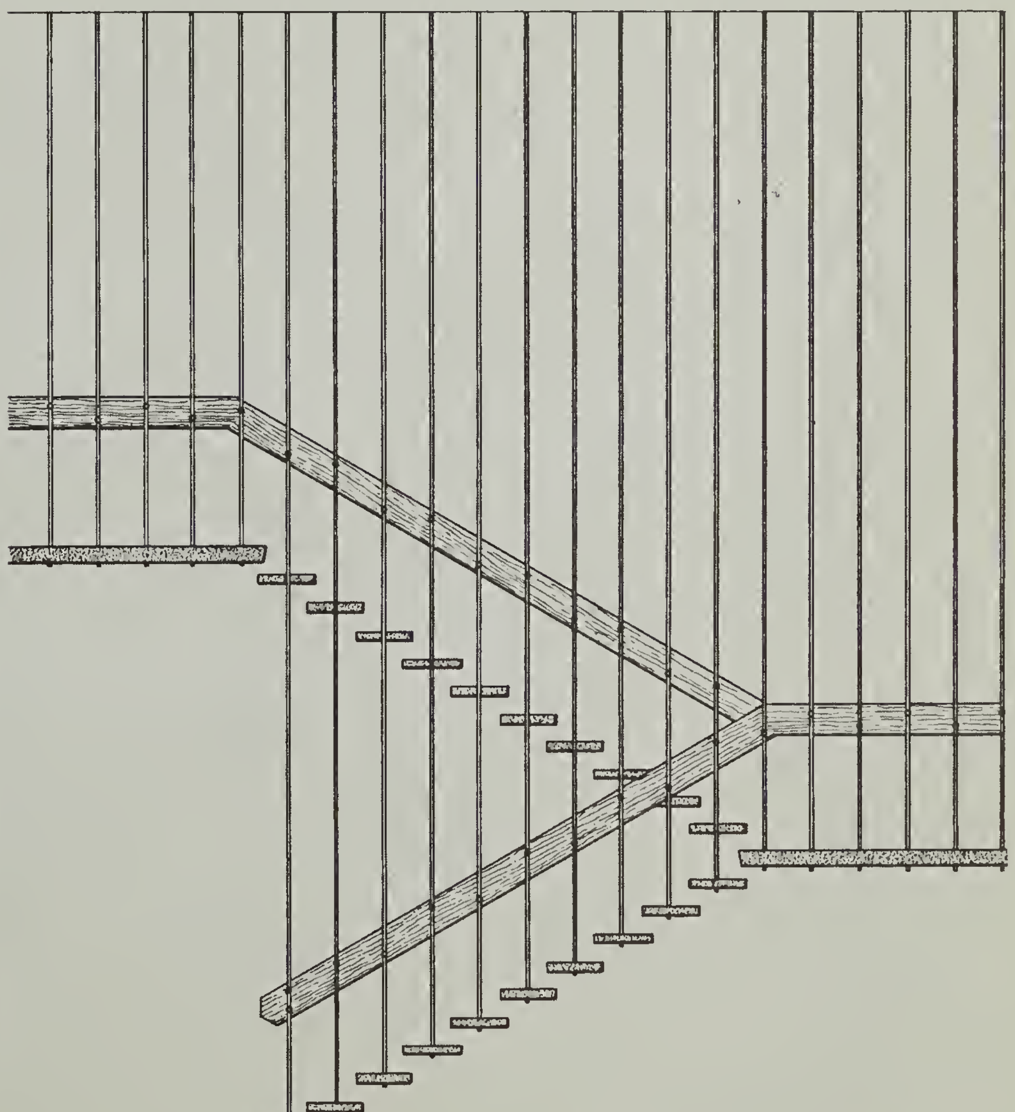
STAIRS AND SUPPORTING RODS—ARE NOT FURNISHED AND NOT ENGINEERED BY BLUMCRAFT.

SERVICE TO ARCHITECT—OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY THE ARCHITECT.


½" DIA. RODS
⅝" DIA. RODS
¾" DIA. RODS
3¼"
3¼"
3¼"
RC-10
RC-20
RC-30

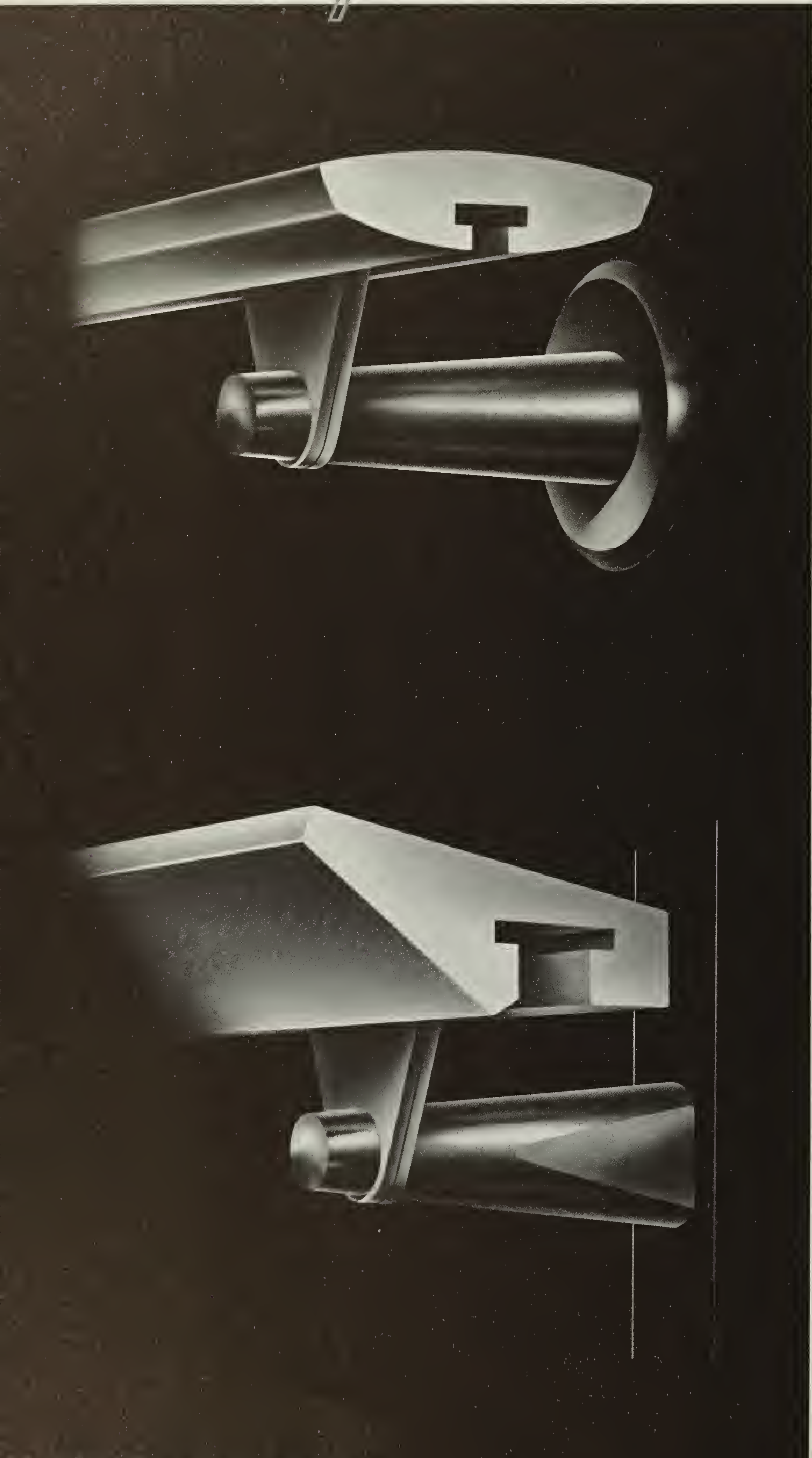
○ ○ ○

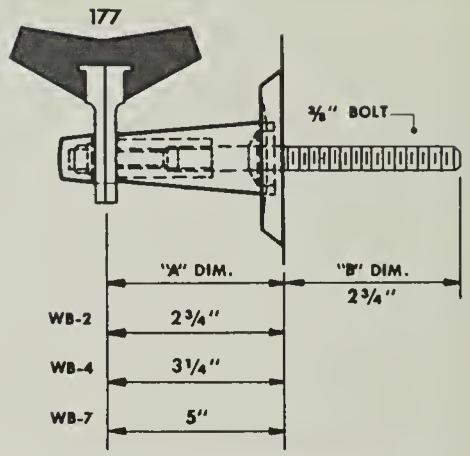
ROD COUPLINGS AVAILABLE FOR ½" DIA., ⅝" DIA. AND ¾" DIA. RODS



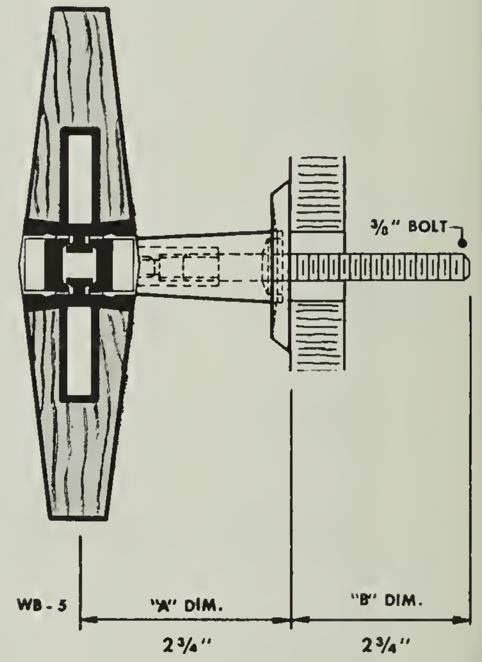
ROD COUPLINGS WITH WOOD PLANK RAIL

FIG. 502



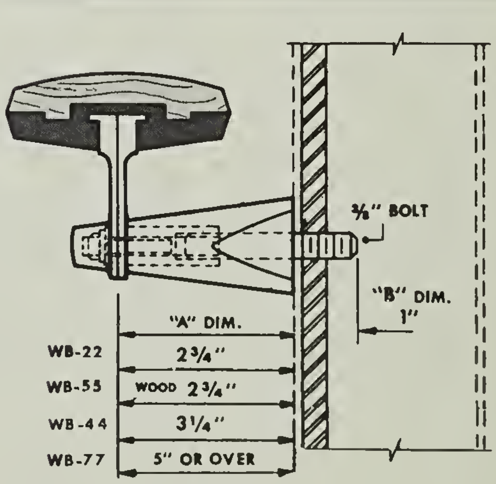

177
⅜" BOLT
"A" DIM.
"B" DIM.
2¾"
WB-2
2¾"
WB-4
3¼"
WB-7
5"

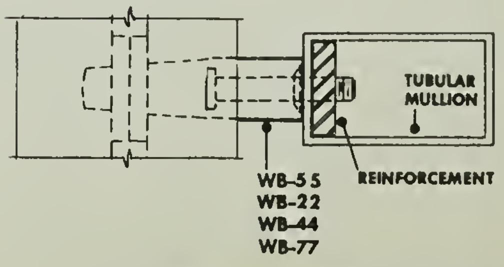
STANDARD WALL BRACKET


⅜" BOLT
WB - 5
"A" DIM.
"B" DIM.
2¾"
2¾"

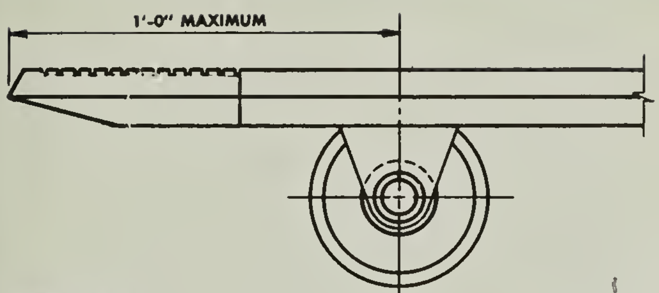
WALL BRACKET FOR PLANK RAIL

WOOD PLANK HANDRAILS W/ALUMINUM SUB-STRUCTURES

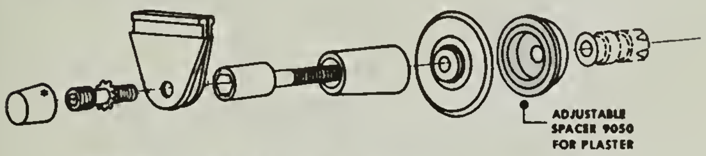

⅜" BOLT
"B" DIM.
1"
"A" DIM.
WB-22
2¾"
WB-55
WOOD 2¾"
WB-44
3¼"
WB-77
5" OR OVER


TUBULAR MULLION
REINFORCEMENT
WB-55
WB-22
WB-44
WB-77

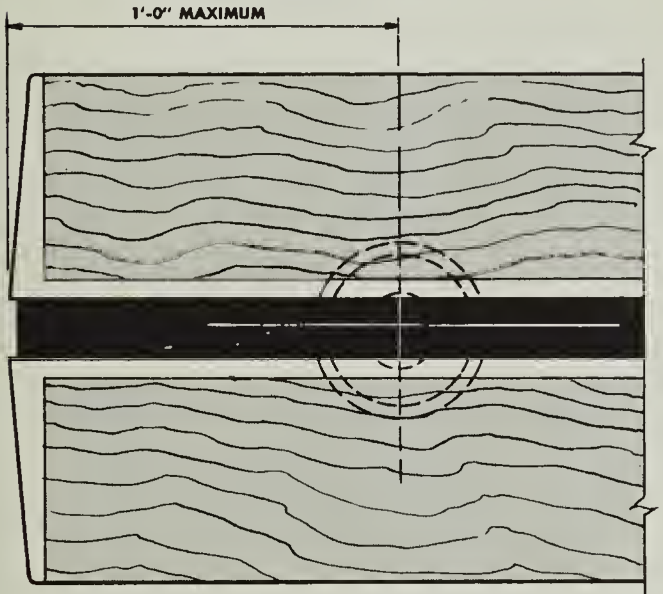
WALL BRACKET FOR MULLION

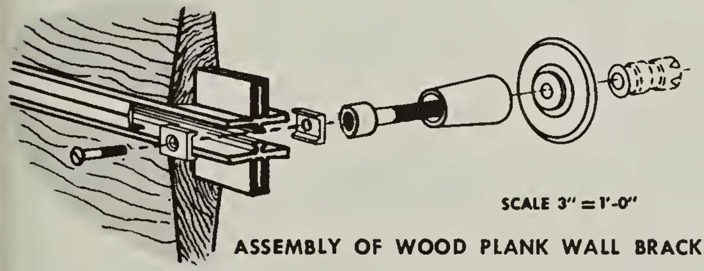


SIDE ELEVATION


ADJUSTABLE SPACER 9050 FOR PLASTER

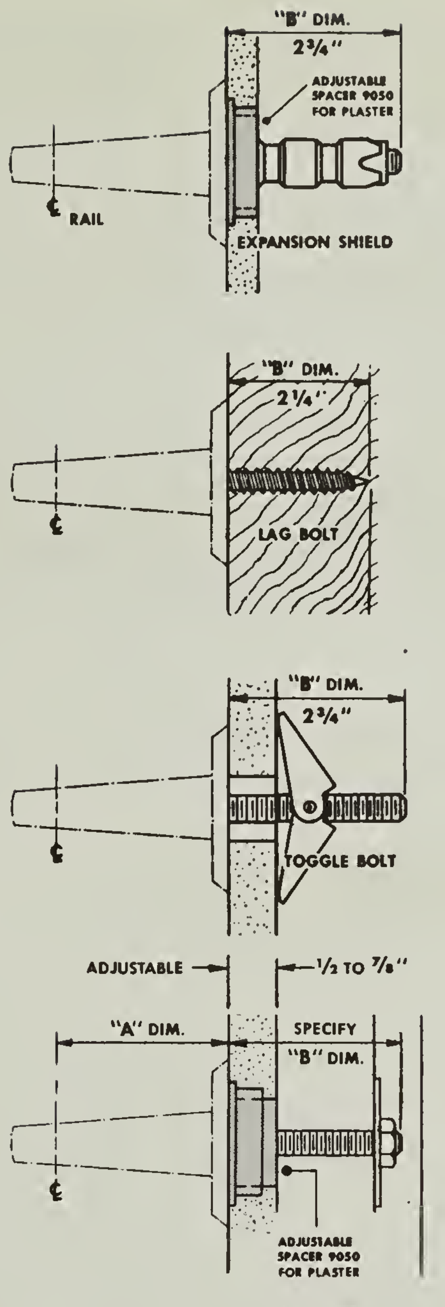
ASSEMBLY OF STANDARD WALL BRACKET





SCALE 3" = 1'-0"

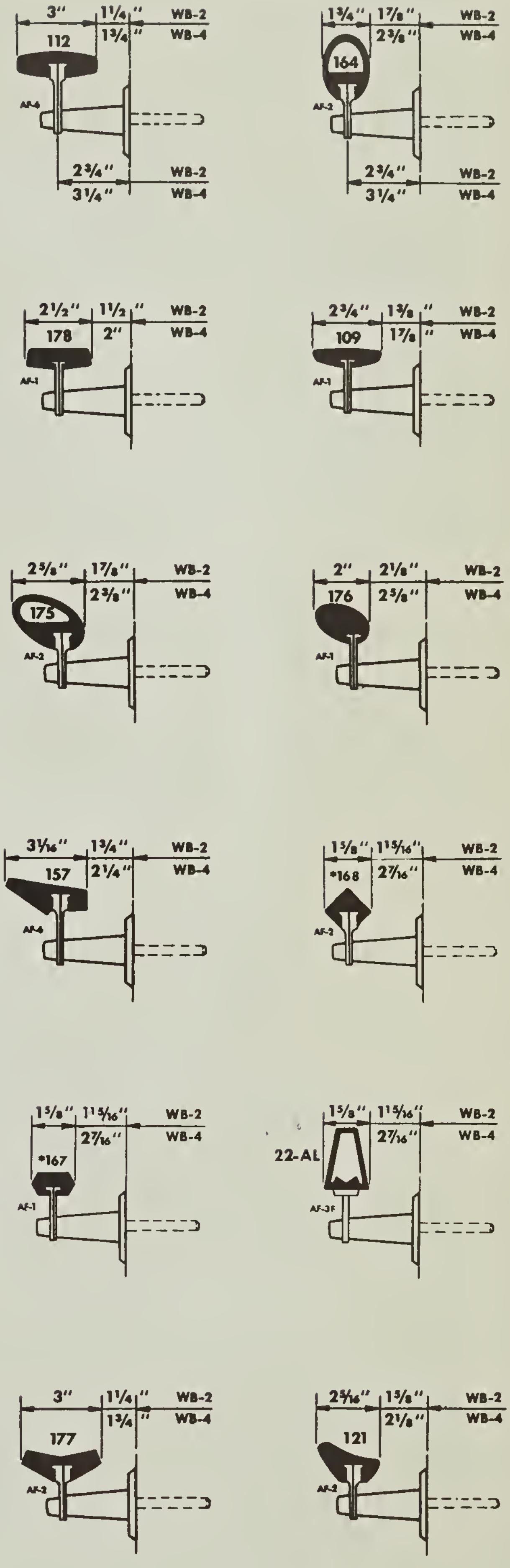
ASSEMBLY OF WOOD PLANK WALL BRACKET

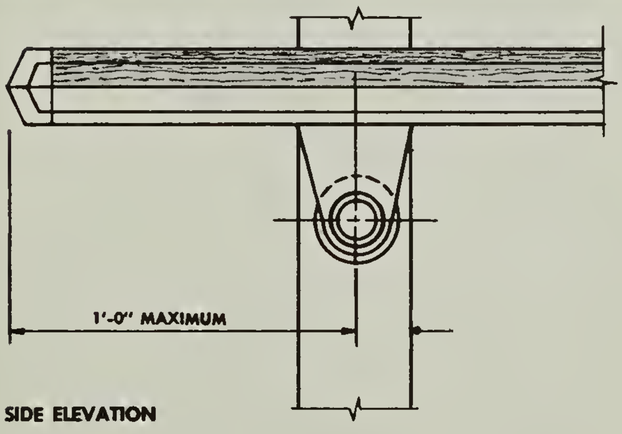

"B" DIM.
2 3/4"
ADJUSTABLE SPACER 9050 FOR PLASTER
℄ RAIL
EXPANSION SHIELD
"B" DIM.
2 1/4"
℄
LAG BOLT
"B" DIM.
2 3/4"
℄
TOGGLE BOLT
ADJUSTABLE
1/2 TO 7/8"
"A" DIM.
SPECIFY
"B" DIM.
℄
ADJUSTABLE SPACER 9050 FOR PLASTER

THROUGH BOLT

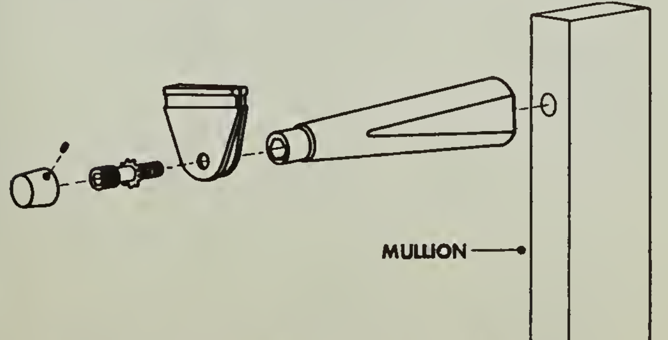
ALTERNATE WALL MOUNTINGS

"A", "B" AND "C" DIMENSIONS FURNISHED IN SPECIAL LENGTH

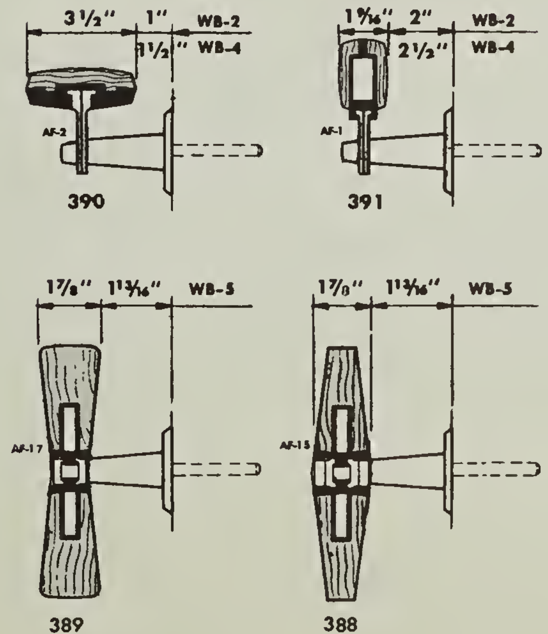

3"
1 1/4"
1 3/4"
WB-2
WB-4
112
AF-4
2 3/4"
3 1/4"
WB-2
WB-4
1 3/4"
1 7/8"
2 3/8"
WB-2
WB-4
164
AF-2
2 3/4"
3 1/4"
WB-2
WB-4
2 1/2"
1 1/2"
2"
WB-2
WB-4
178
AF-1
2 3/4"
1 3/8"
1 7/8"
WB-2
WB-4
109
AF-1
2 5/8"
1 7/8"
2 3/8"
WB-2
WB-4
175
AF-2
2"
2 1/8"
2 5/8"
WB-2
WB-4
176
AF-1
3 1/16"
1 3/4"
2 1/4"
WB-2
WB-4
157
AF-4
1 5/8"
1 15/16"
2 7/16"
WB-2
WB-4
*168
AF-2
1 5/8"
1 15/16"
2 7/16"
WB-2
WB-4
*167
AF-1
1 5/8"
1 15/16"
2 7/16"
WB-2
WB-4
22-AL
AF-3F
3"
1 1/4"
1 3/4"
WB-2
WB-4
177
AF-2
2 5/16"
1 5/8"
2 1/8"
WB-2
WB-4
121
AF-2



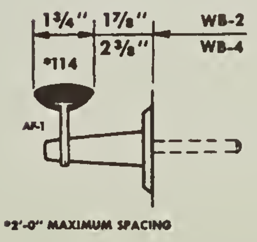
SIDE ELEVATION



ASSEMBLY OF WB-22 WALL BRACKET FOR MULLION


3 1/2"
1"
1 1/2"
WB-2
WB-4
AF-2
390
1 9/16"
2"
2 1/2"
WB-2
WB-4
AF-1
391
1 7/8"
1 13/16"
WB-5
AF-17
389
1 7/8"
1 13/16"
WB-5
AF-15
388

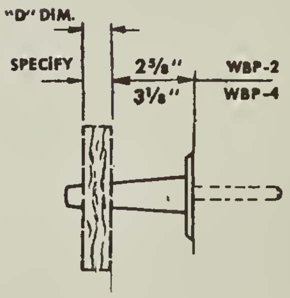
WOOD PLANK HANDRAILS WITH ALUMINUM SUB-STRUCTURES


1 3/4"
1 7/8"
2 3/8"
WB-2
WB-4
*114
AF-1

*2'-0" MAXIMUM SPACING

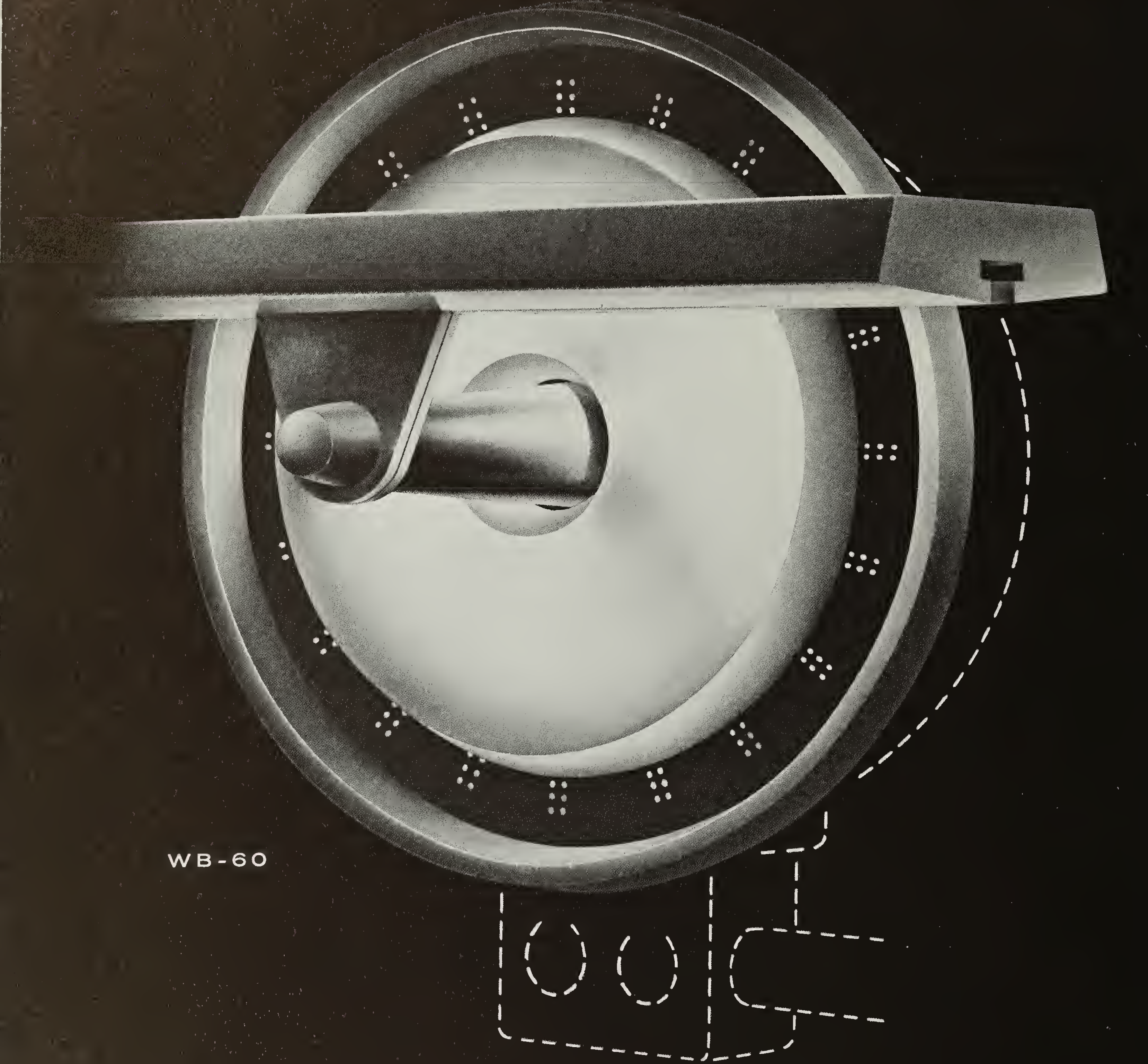
ALUMINUM RAILS

*VINYL GRIP HANDRAIL AVAILABLE FOR 167 AND 168 HANDRAILS


"D" DIM.
SPECIFY
2 5/8"
3 1/8"
WBP-2
WBP-4

PLANK RAILS

SCALE 1 1/2" = 1'-0"



WB-60

LIGHTING FIXTURE/HANDRAIL BRACKET spotlights handrails in corridors and stairways • • • Incandescent recessed lighting provides added safety and decorative night lighting for:

HOSPITALS • HOMES FOR AGED • THEATRES • HOTELS • SHIPS

DELUXE-LINE

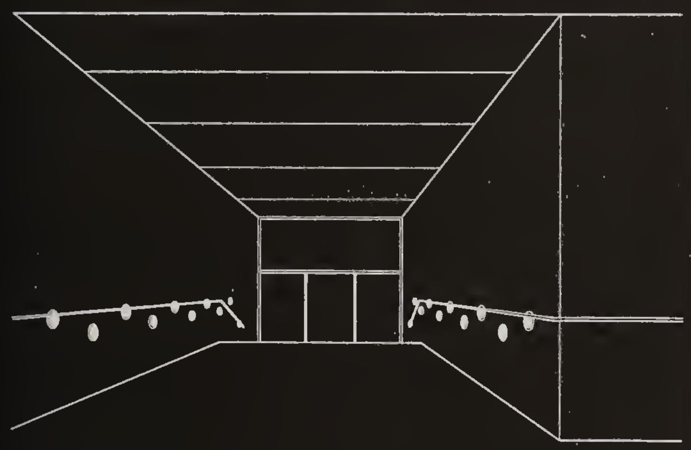


FIG. 559

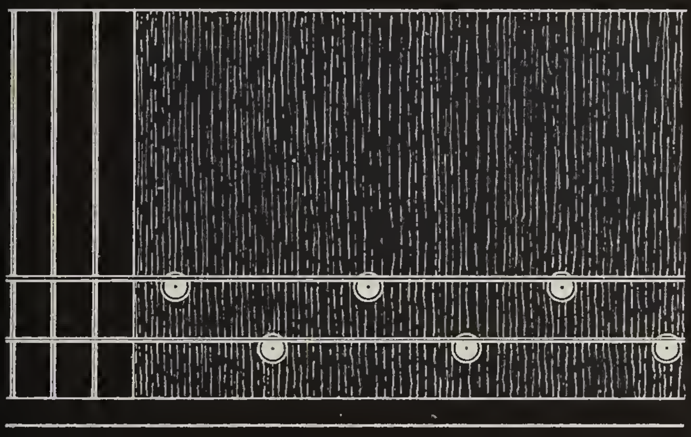


FIG. 560

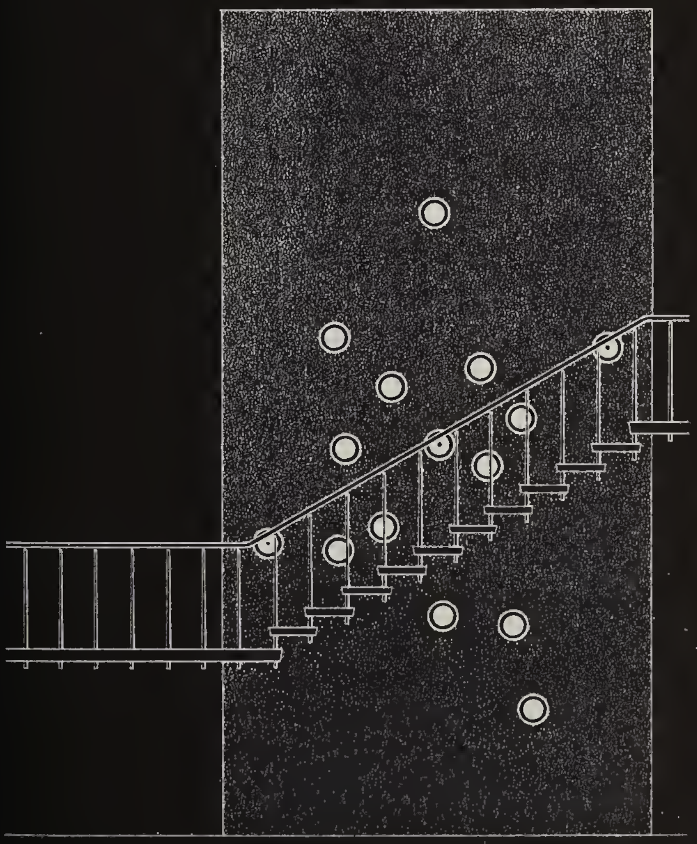
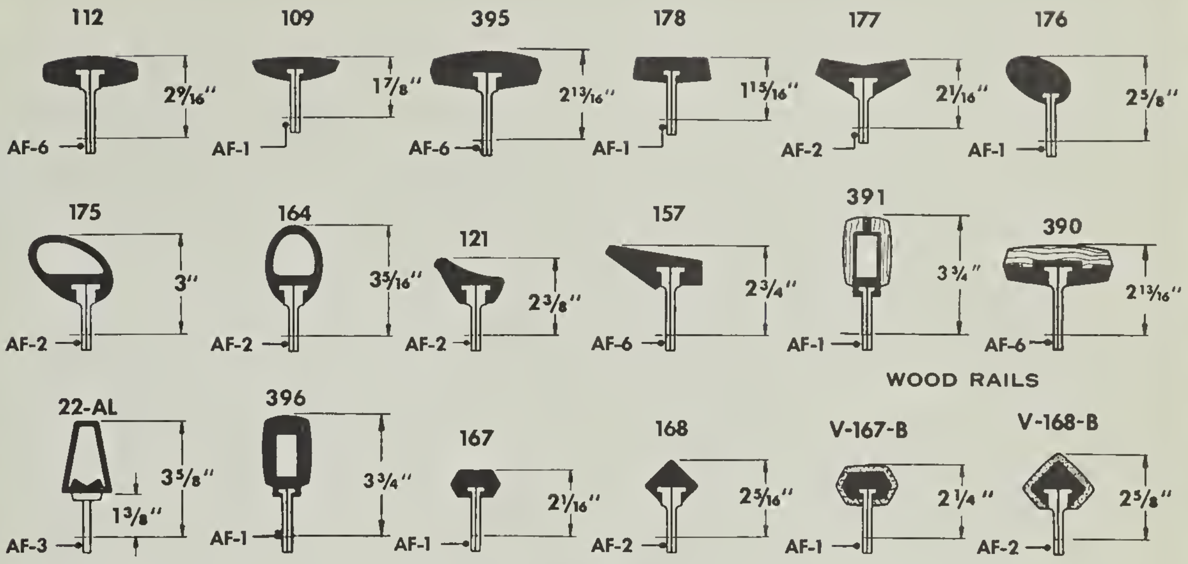
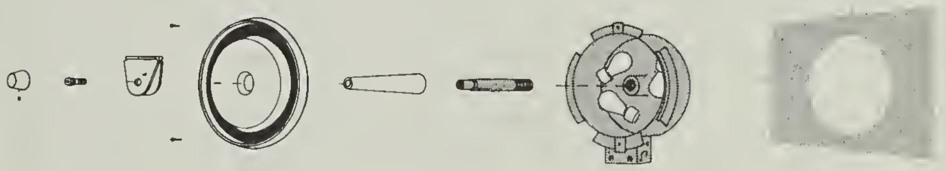


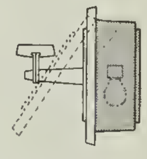
FIG. 561


112
2 9/16"
AF-6
109
1 7/8"
AF-1
395
2 13/16"
AF-6
178
1 15/16"
AF-1
177
2 1/16"
AF-2
176
2 5/8"
AF-1
175
3"
AF-2
164
3 5/16"
AF-2
121
2 3/8"
AF-2
157
2 3/4"
AF-6
391
3 3/4"
AF-1
390
2 13/16"
AF-6
WOOD RAILS
22-AL
3 5/8"
1 3/8"
AF-3
396
3 3/4"
AF-1
167
2 1/16"
AF-1
168
2 5/16"
AF-2
V-167-B
2 1/4"
AF-1
V-168-B
2 5/8"
AF-2

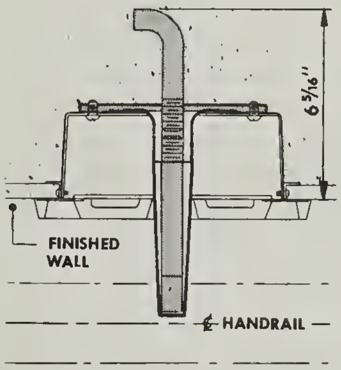
ALUMINUM RAILS FULL SIZE SECTIONS PAGES — 146-149 VINYL RAILS



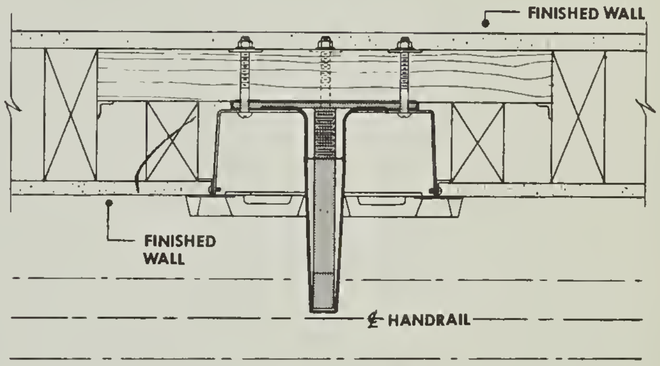
ASSEMBLY OF ILLUMINATED WALL BRACKET WB-60



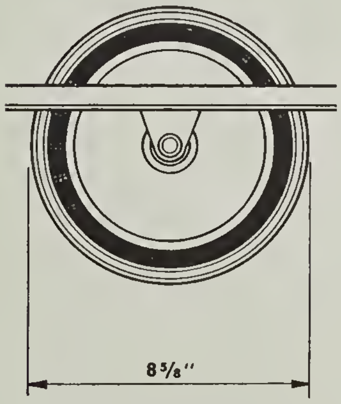
RELAMP WITHOUT REMOVING HANDRAIL


6 5/16"
FINISHED WALL
℄ HANDRAIL

MOUNTING IN MASONRY WALL

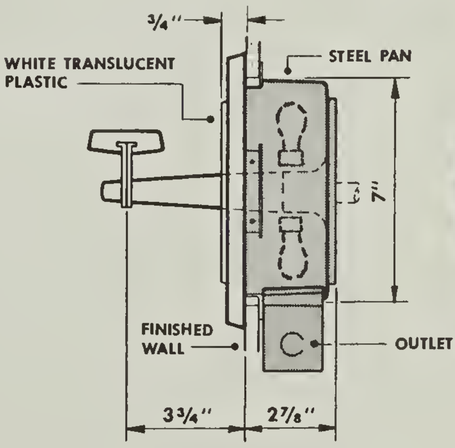

FINISHED WALL
FINISHED WALL
℄ HANDRAIL

MOUNTING IN STUD WALL

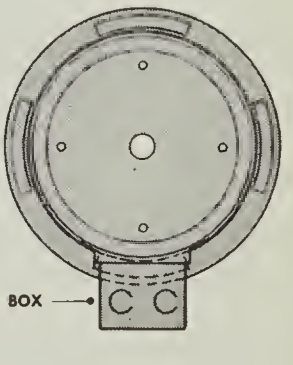


WALL BRACKET WB-60

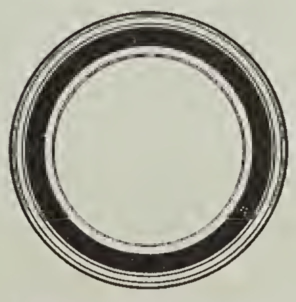
SCALE 1 1/2" = 1'-0"


3/4"
WHITE TRANSLUCENT PLASTIC
STEEL PAN
7"
FINISHED WALL
OUTLET BOX
3 3/4"
2 7/8"

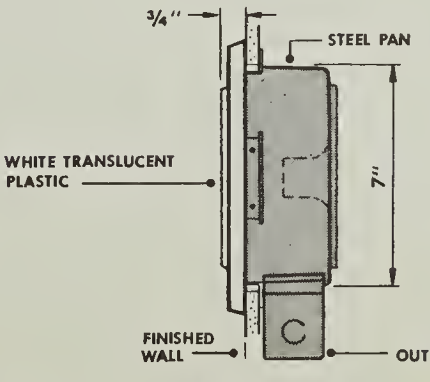
SIDE ELEVATION



REAR VIEW



MATCHING WALL FIXTURE LF — 60 (WITHOUT HANDRAIL BRACKET)


3/4"
STEEL PAN
WHITE TRANSLUCENT PLASTIC
7"
FINISHED WALL
OUTLET BOX

SIDE ELEVATION

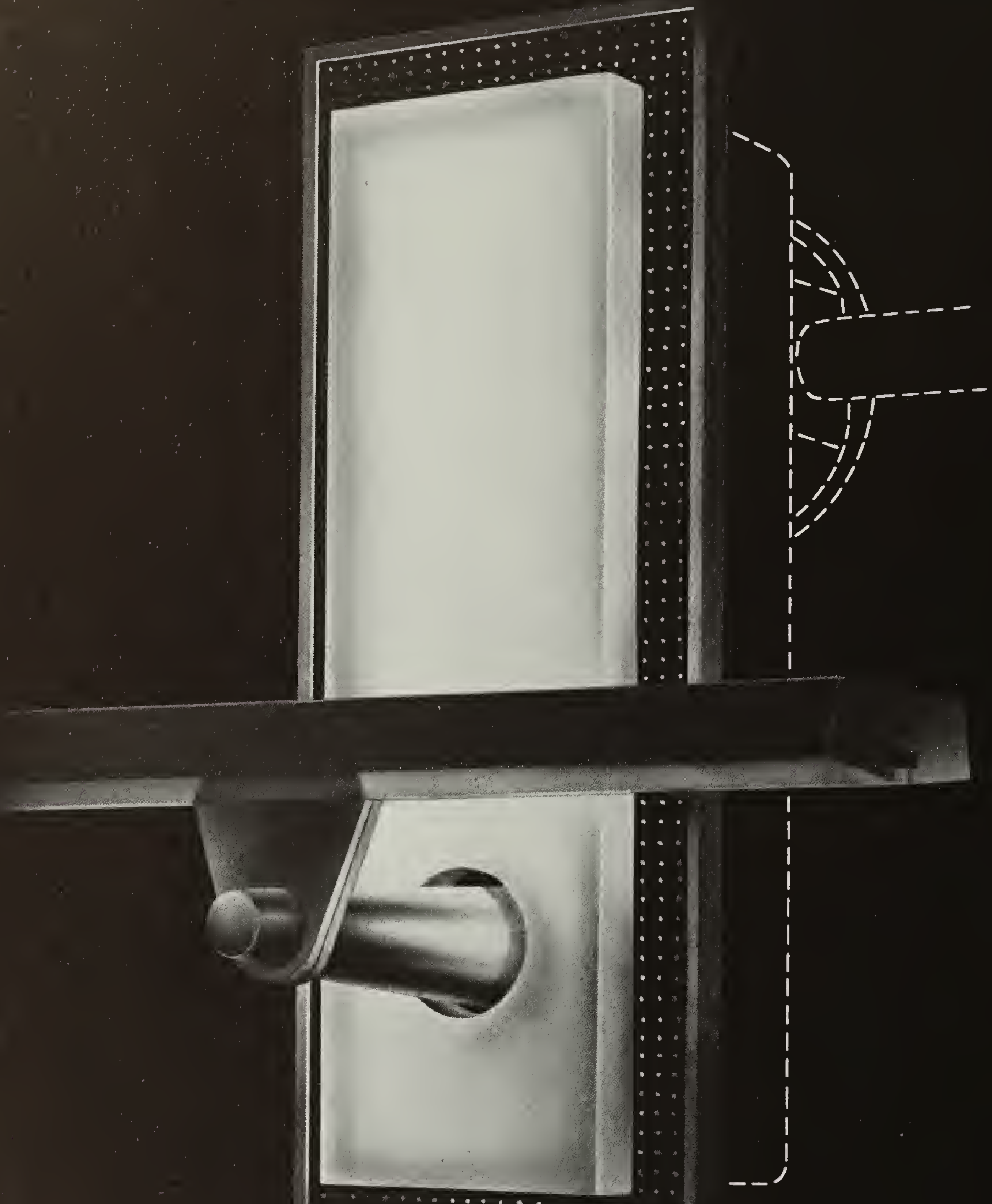
3 — 10 WATT LAMPS S — 11 TYPE
115-125 VOLTS

OUTER RING:
ALUMINUM SATIN FINISH

INNER RING:
ALUMINUM BLACK ANODIZED

LENS:
WHITE TRANSLUCENT PLASTIC

LISTED WITH UNDERWRITERS LABORATORIES



Lighting fixture / Handrail bracket WB-50

BLUMCRAFT'S ORIGINAL DESIGNS AND STRUCTURES ARE FULLY COVERED BY PATENTS AND PENDING PATENT APPLICATIONS IN THE UNITED STATES AND CANADA.

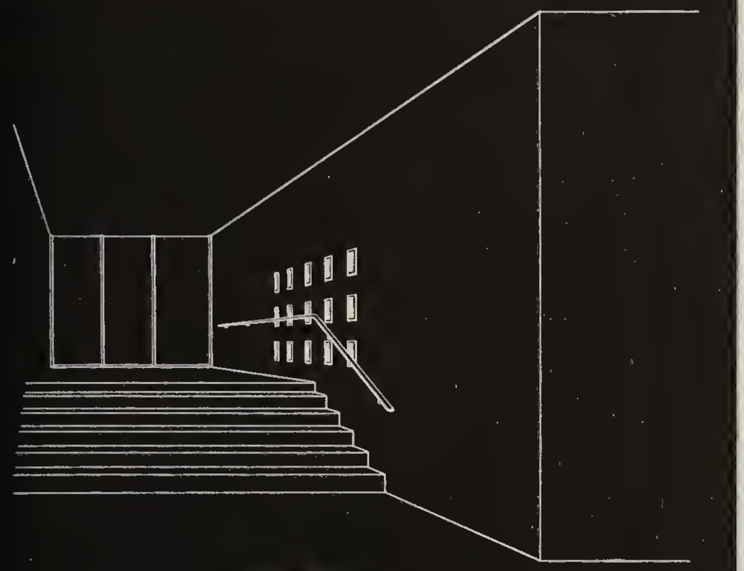


FIG. 562

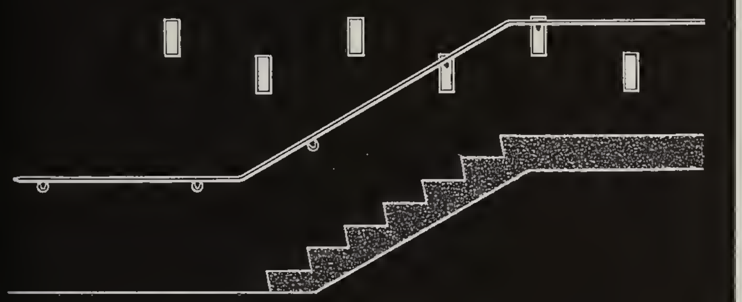


FIG. 563

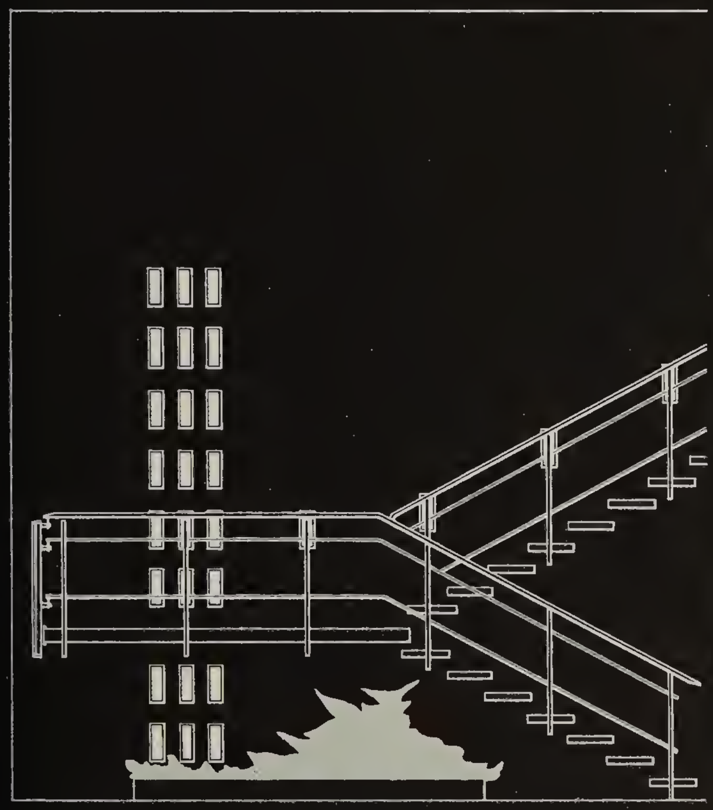
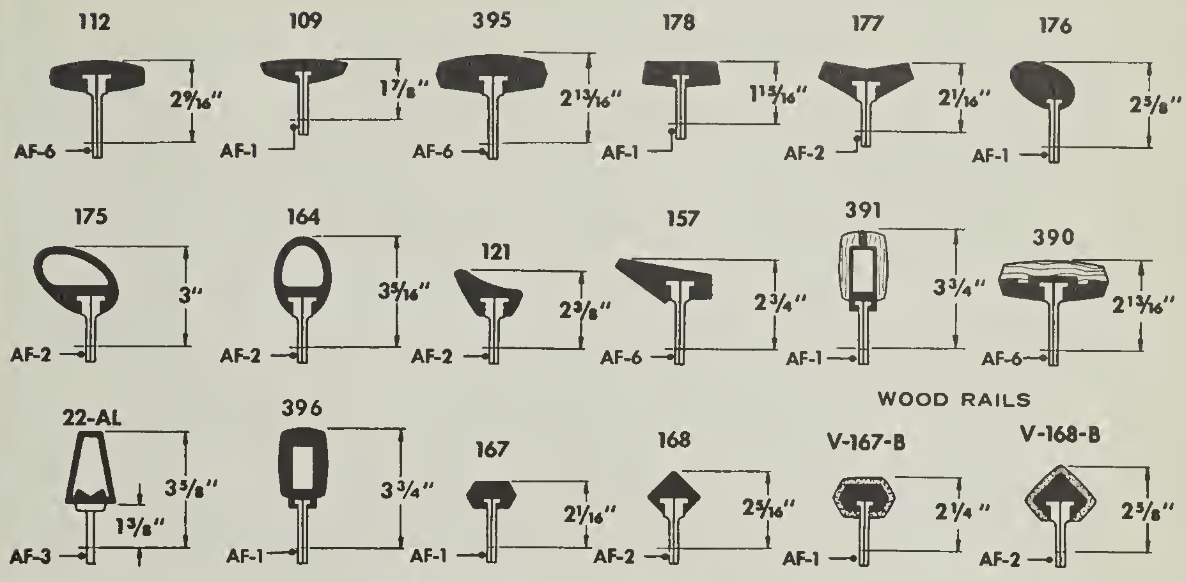


FIG. 564

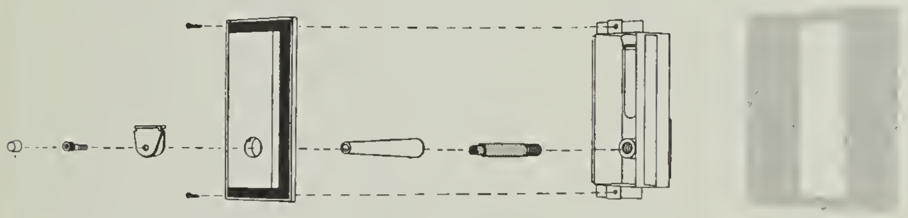

112
2 9/16"
AF-6
109
1 7/8"
AF-1
395
2 13/16"
AF-6
178
1 15/16"
AF-1
177
2 1/16"
AF-2
176
2 5/8"
AF-1
175
3"
AF-2
164
3 5/16"
AF-2
121
2 3/8"
AF-2
157
2 3/4"
AF-6
391
3 3/4"
AF-1
390
2 13/16"
AF-6
22-AL
3 5/8"
1 3/8"
AF-3
396
3 3/4"
AF-1
167
2 1/16"
AF-1
168
2 5/16"
AF-2
V-167-B
2 1/4"
AF-1
V-168-B
2 5/8"
AF-2

WOOD RAILS

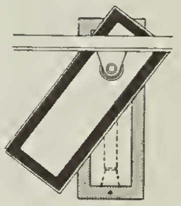
ALUMINUM RAILS

FULL SIZE SECTIONS PAGES — 146-149

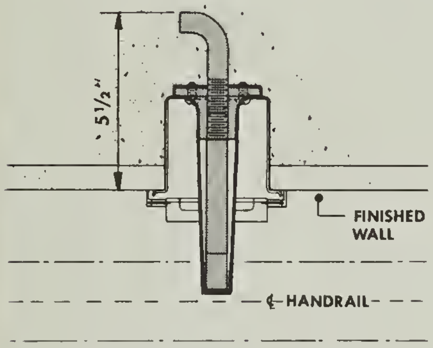
VINYL RAILS



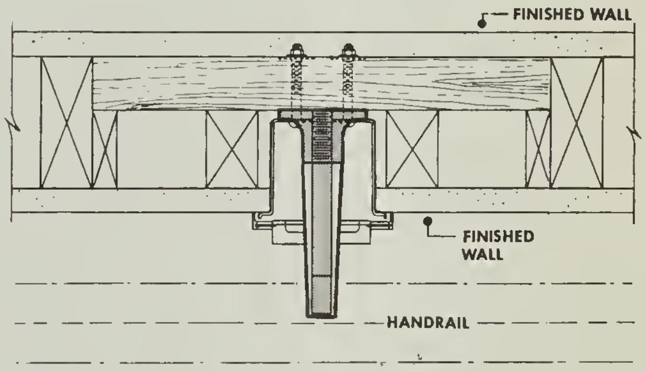
ASSEMBLY OF ILLUMINATED WALL BRACKET WB-50



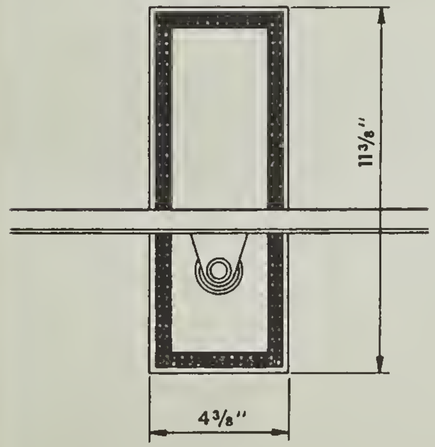
RELAMP WITHOUT REMOVING HANDRAIL


5 1/2"
FINISHED WALL
℄ HANDRAIL

MOUNTING IN MASONRY WALL

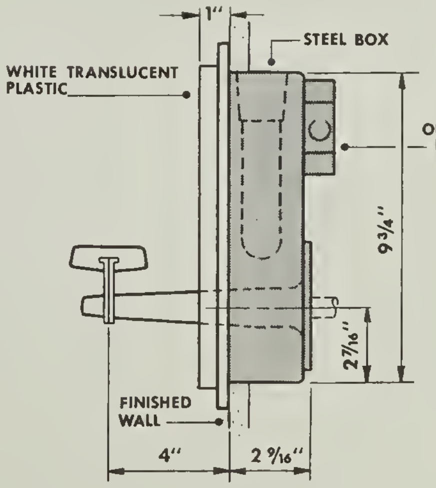

FINISHED WALL
FINISHED WALL
HANDRAIL

MOUNTING IN STUD WALL

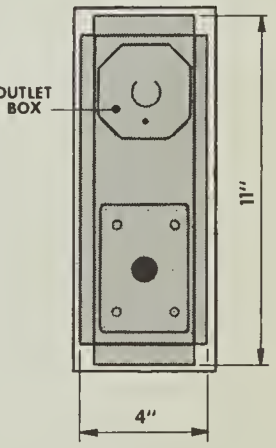


WALL BRACKET WB-50

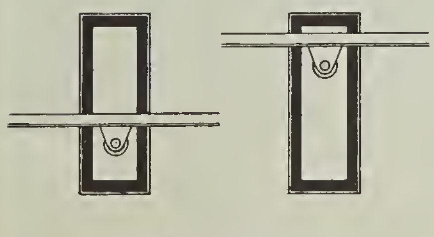
SCALE 1½"=1'-0"


1"
STEEL BOX
WHITE TRANSLUCENT PLASTIC
9 3/4"
2 7/16"
FINISHED WALL
4"
2 9/16"

SIDE ELEVATION


OUTLET BOX
11"
4"

REAR VIEW



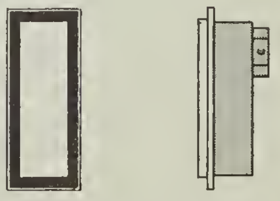
ALTERNATE POSITION

1—25 WATT LAMP "T" TYPE
115-125 VOLTS

OUTER FRAME:
ALUMINUM SATIN FINISH

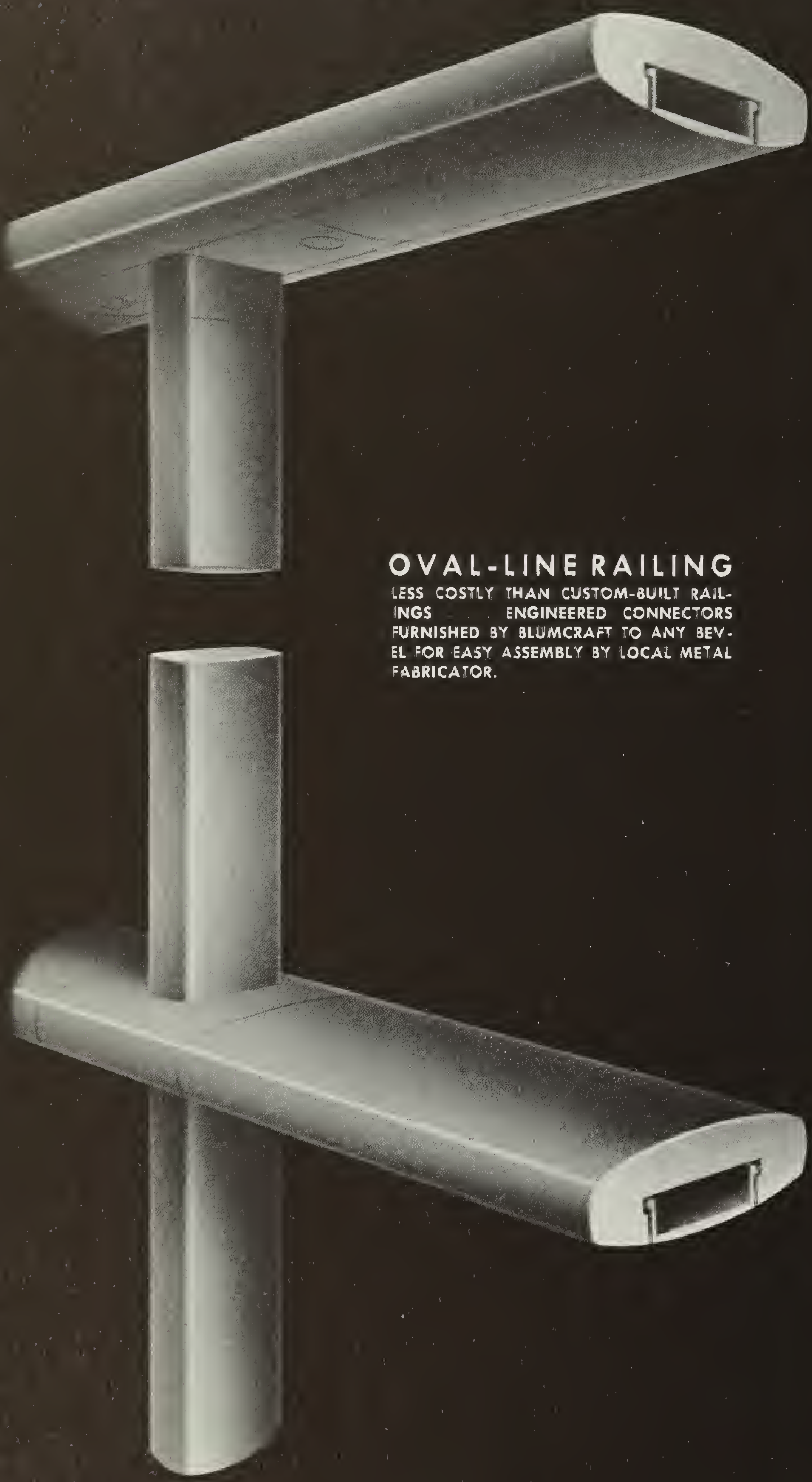
INNER FRAME:
ALUMINUM BLACK ANODIZED

LENS:
WHITE TRANSLUCENT PLASTIC



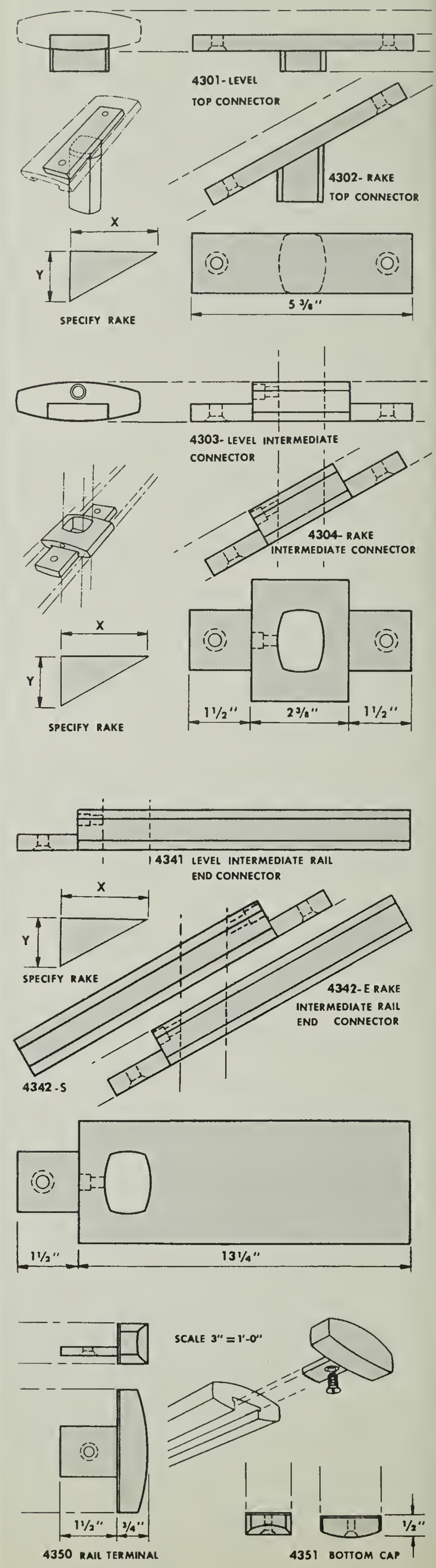
MATCHING WALL FIXTURE LF-50 (WITHOUT HANDRAIL BRACKET)

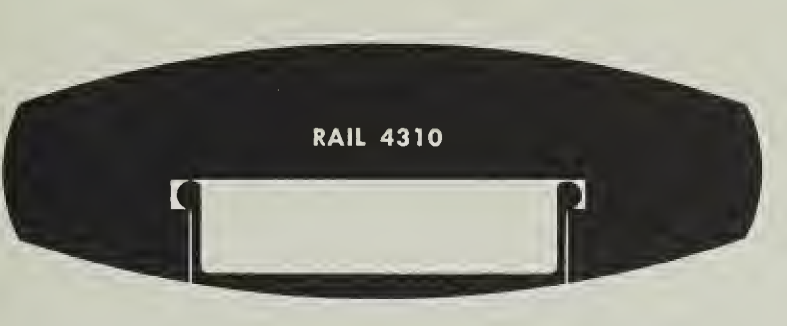
LISTED WITH UNDERWRITERS LABORATORIES

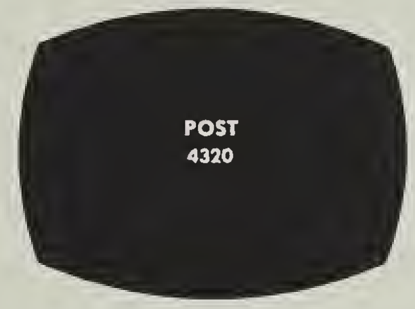


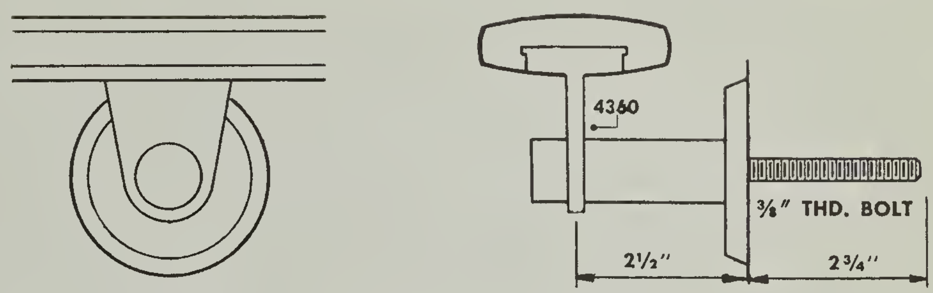
OVAL-LINE RAILING

LESS COSTLY THAN CUSTOM-BUILT RAILINGS ENGINEERED CONNECTORS FURNISHED BY BLUMCRAFT TO ANY BEVEL FOR EASY ASSEMBLY BY LOCAL METAL FABRICATOR.

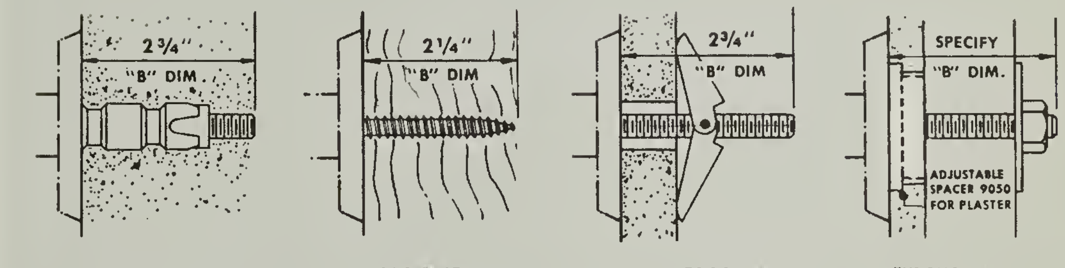

4301- LEVEL TOP CONNECTOR
4302- RAKE TOP CONNECTOR
X
Y
SPECIFY RAKE
5 3/8"
4303- LEVEL INTERMEDIATE CONNECTOR
4304- RAKE INTERMEDIATE CONNECTOR
X
Y
SPECIFY RAKE
1 1/2"
2 3/8"
1 1/2"
4341 LEVEL INTERMEDIATE RAIL END CONNECTOR
X
Y
SPECIFY RAKE
4342- E RAKE INTERMEDIATE RAIL END CONNECTOR
4342 - S
1 1/2"
13 1/4"
SCALE 3" = 1'-0"
1 1/2"
3/4"
1/2"
4350 RAIL TERMINAL
4351 BOTTOM CAP






4360
⅜" THD. BOLT
2½"
2¾"

SIDE ELEVATION


2¾"
"B" DIM
2¼"
"B" DIM
2¾"
"B" DIM
SPECIFY
"B" DIM.
ADJUSTABLE
SPACER 9050
FOR PLASTER

EXPANSION SHIELD — LAG BOLT — TOGGLE BOLT — THROUGH BOLT

WALL BRACKET 4331

SCALE 3" = 1'-0"

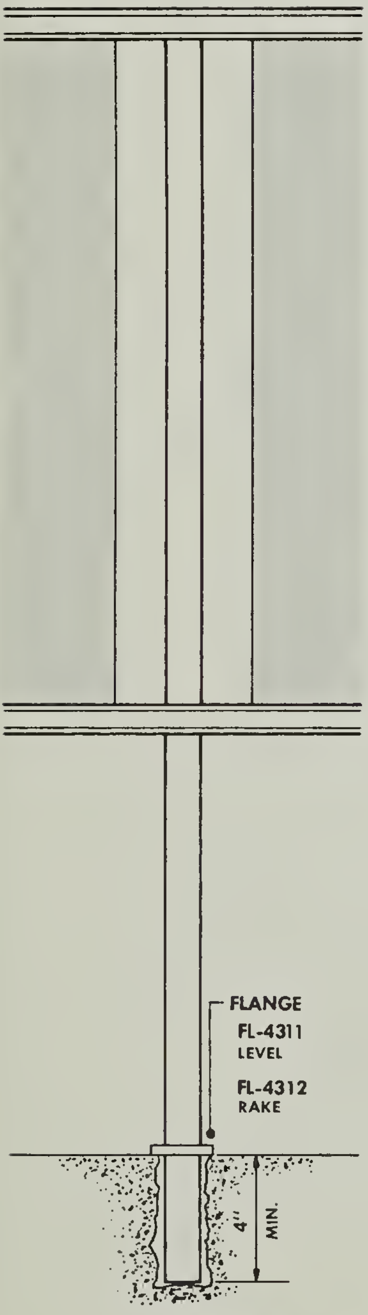
HANDRAILS and POSTS FURNISHED IN 20'-0" STOCK BARS. LOCAL METAL FABRICATOR BENDS AND SHAPES HANDRAILS; AND APPLIES CONNECTORS.

***ACCESSORIES** FURNISHED BY BLUMCRAFT COMPLETE FOR APPLICATION TO HANDRAILS AND POSTS BY THE LOCAL METAL FABRICATOR.

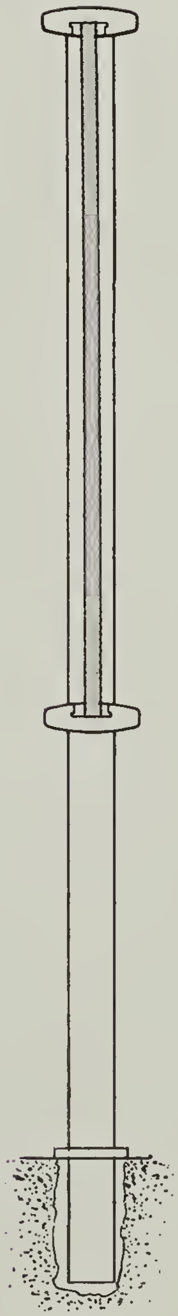
FINISH: ALL COMPONENTS FURNISHED IN A 100 GRIT PRELIMINARY FINISH. FABRICATOR SHALL APPLY FINISH AS SPECIFIED.

ALLOY: ALL COMPONENTS FURNISHED IN A #6063 EXTRUDED ALUMINUM ALLOY. (NO CASTINGS)

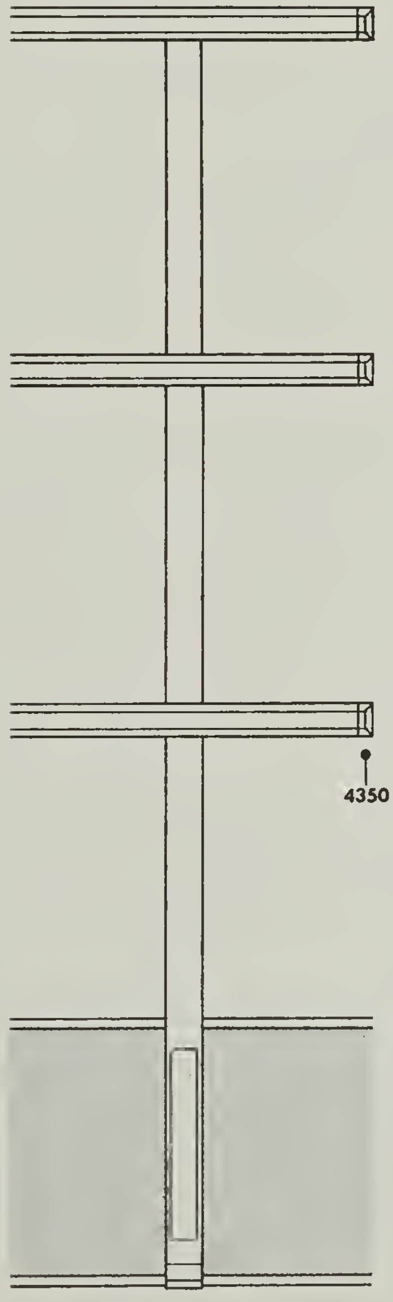
***NOTE:** *Top connectors and intermediate connectors are furnished to any bevel dimensions by Blumcraft, thus reducing costly shop labor.*


FLANGE
FL-4311
LEVEL
FL-4312
RAKE
4"
MIN.

SIDE ELEVATION



GROUTED POST

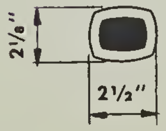


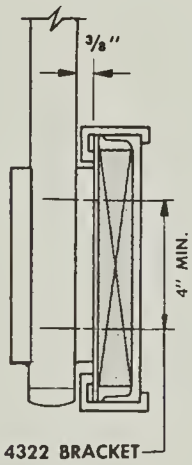
SIDE ELEVATION

4'-0" MAXIMUM POST SPACING

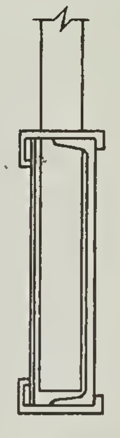
ALTERNATE MOUNTINGS

SCALE 1½" = 1'-0"

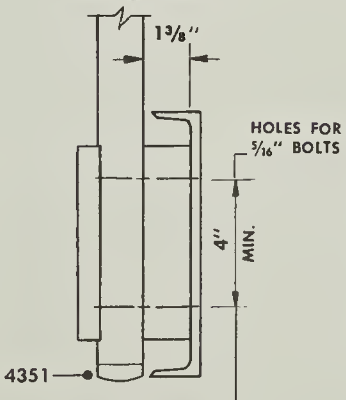




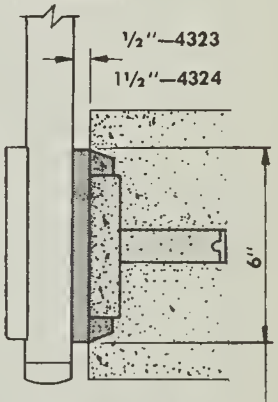
4322 BRACKET



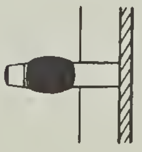
THRU-STRINGER

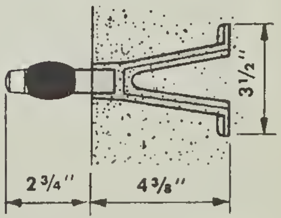

1⅜"
HOLES FOR
5/16" BOLTS
4"
MIN.
4351

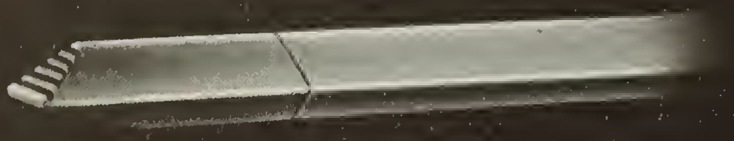
4321 BRACKET


½"—4323
1½"—4324
6"

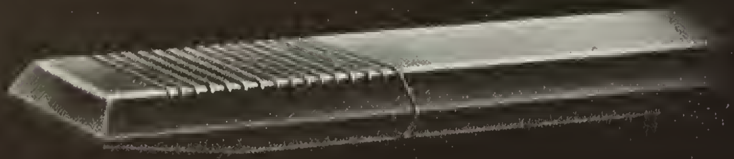
AU—ANCHOR BRACKET



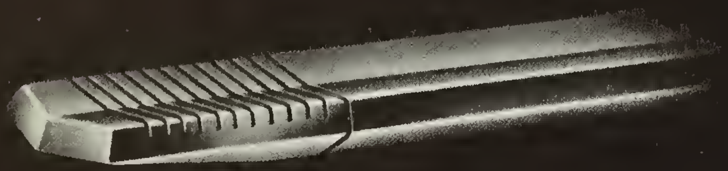




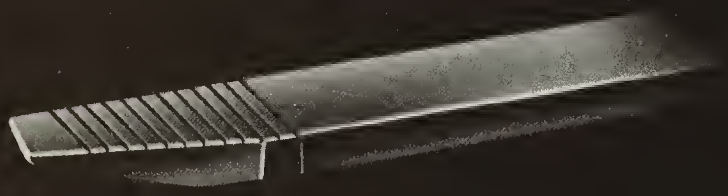
RT-168



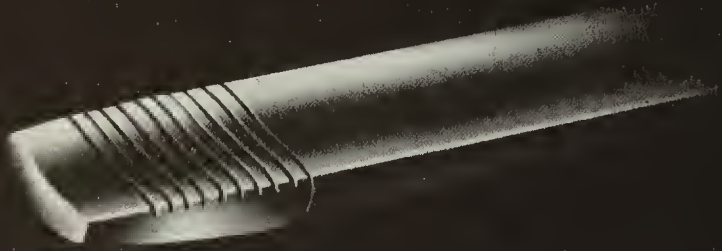
RT-167



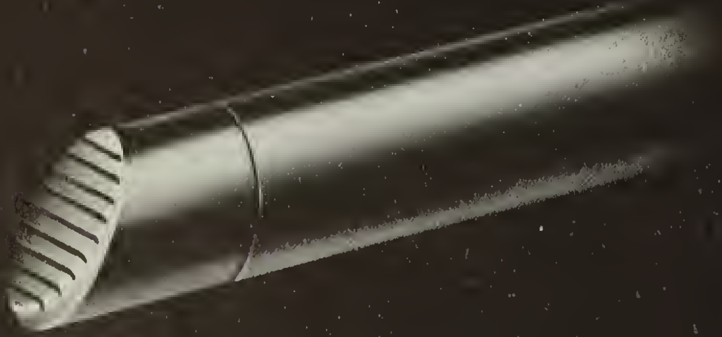
RT-177



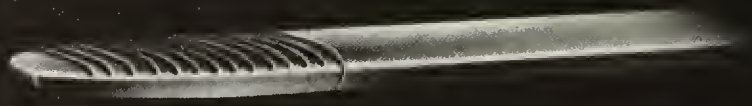
RT-157



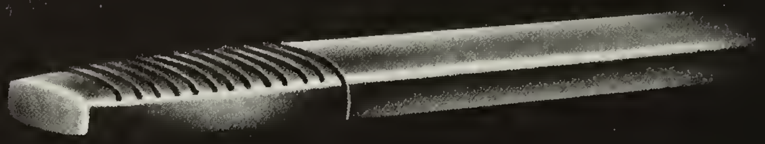
RT-121



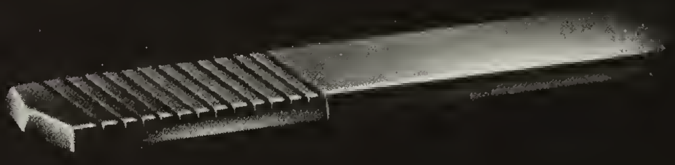
RT-164



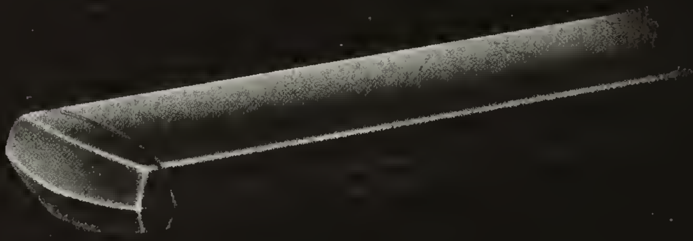
* RT-109



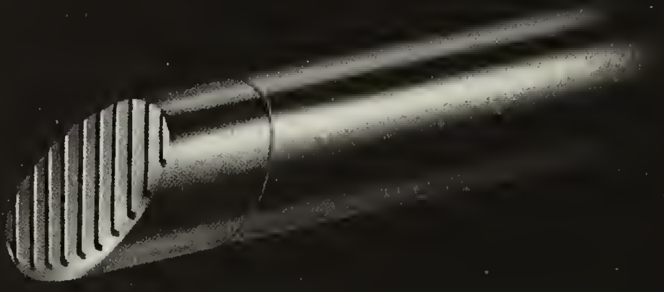
RT-112



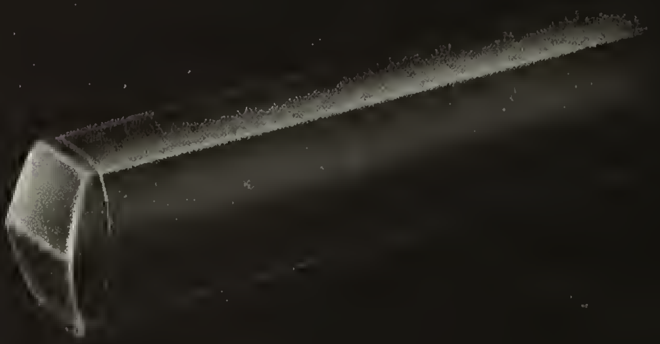
RT-178



RT-395



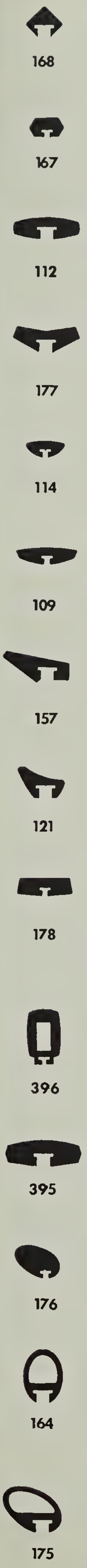
† RT-175



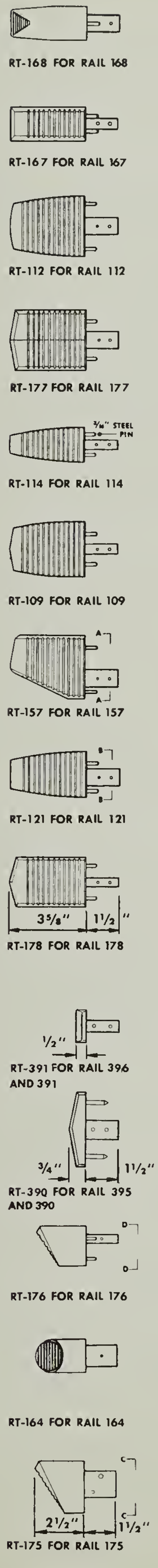
RT-396

*RT-114 SIMILAR

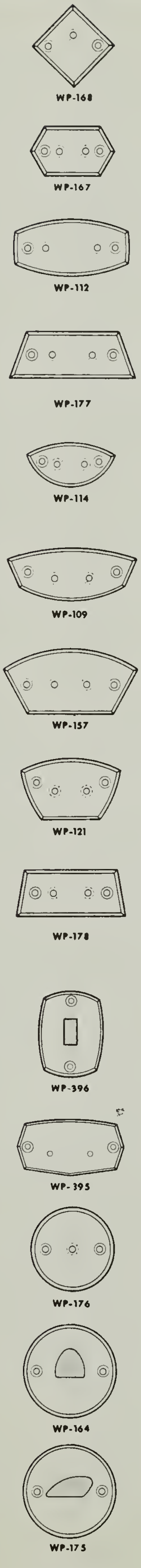
†RT-176 SIMILAR


168
167
112
177
114
109
157
121
178
396
395
176
164
175

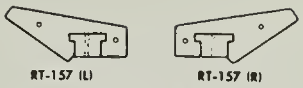
HANDRAILS


RT-168 FOR RAIL 168
RT-167 FOR RAIL 167
RT-112 FOR RAIL 112
RT-177 FOR RAIL 177
3/16" STEEL PIN
RT-114 FOR RAIL 114
RT-109 FOR RAIL 109
A
A
RT-157 FOR RAIL 157
B
B
RT-121 FOR RAIL 121
3 5/8"
1 1/2"
RT-178 FOR RAIL 178
1/2"
RT-391 FOR RAIL 396 AND 391
3/4"
1 1/2"
RT-390 FOR RAIL 395 AND 390
D
D
RT-176 FOR RAIL 176
RT-164 FOR RAIL 164
C
C
2 1/2"
1 1/2"
RT-175 FOR RAIL 175

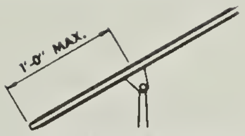
TERMINALS


WP-168
WP-167
WP-112
WP-177
WP-114
WP-109
WP-157
WP-121
WP-178
WP-396
WP-395
WP-176
WP-164
WP-175

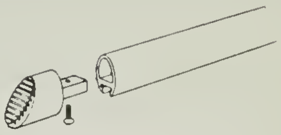
WALLPLATES


RT-157 (L)
RT-157 (R)

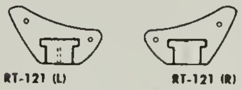
SECTION A-A



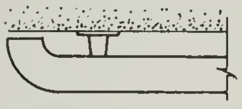
HANDRAIL PROJECTIONS



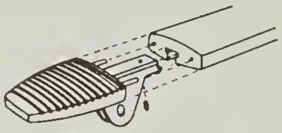
RAIL TERMINAL ASSEMBLY


RT-121 (L)
RT-121 (R)

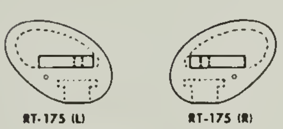
SECTION B-B



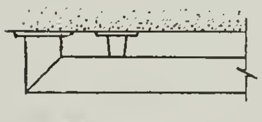
CURVED RAIL RETURN



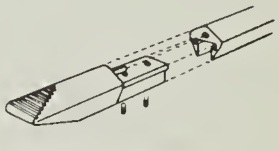
RTC—COMBINATION RAIL TERMINAL WITH SPECIAL AF-FITTING


RT-175 (L)
RT-175 (R)

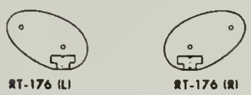
SECTION C-C



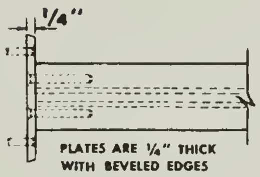
MITER RAIL RETURN

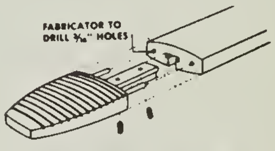


RAIL TERMINAL ASSEMBLY


RT-176 (L)
RT-176 (R)

SECTION D-D


1/4"
PLATES ARE 1/4" THICK WITH BEVELED EDGES


FABRICATOR TO DRILL 3/16" HOLES

RAIL TERMINAL ASSEMBLY

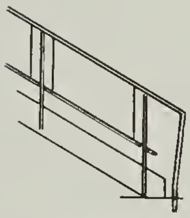
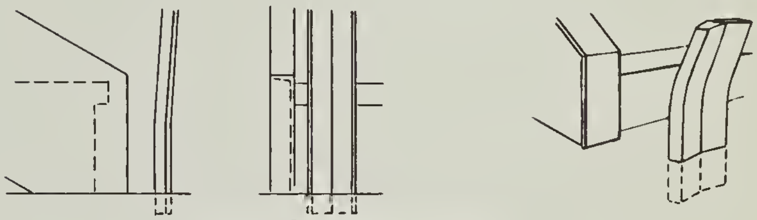


Fig. No. 700



HANDRAIL GROUTED IN FLOOR

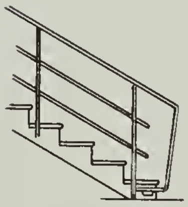
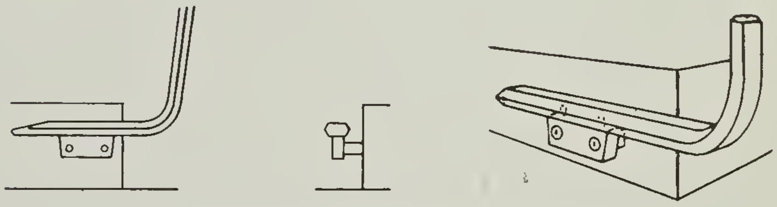


Fig. No. 701



HANDRAIL SIDE MOUNTED TO STRINGER

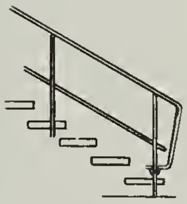
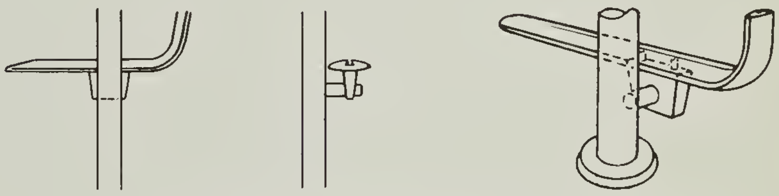


Fig. No. 702



HANDRAIL SIDE MOUNTED TO STARTING POST

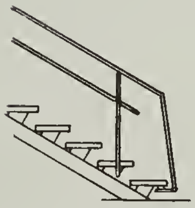
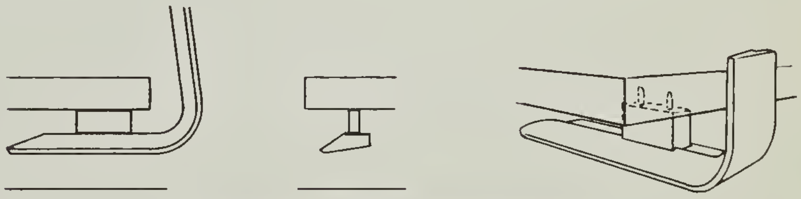


Fig. No. 703



HANDRAIL MOUNTED UNDER TREAD

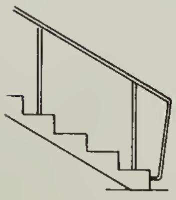
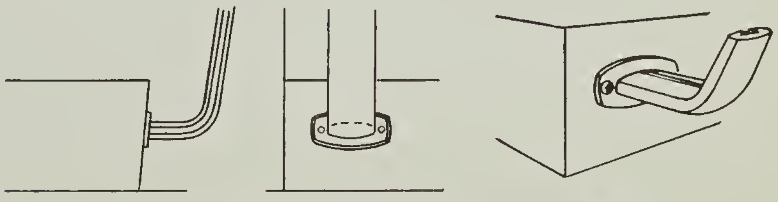


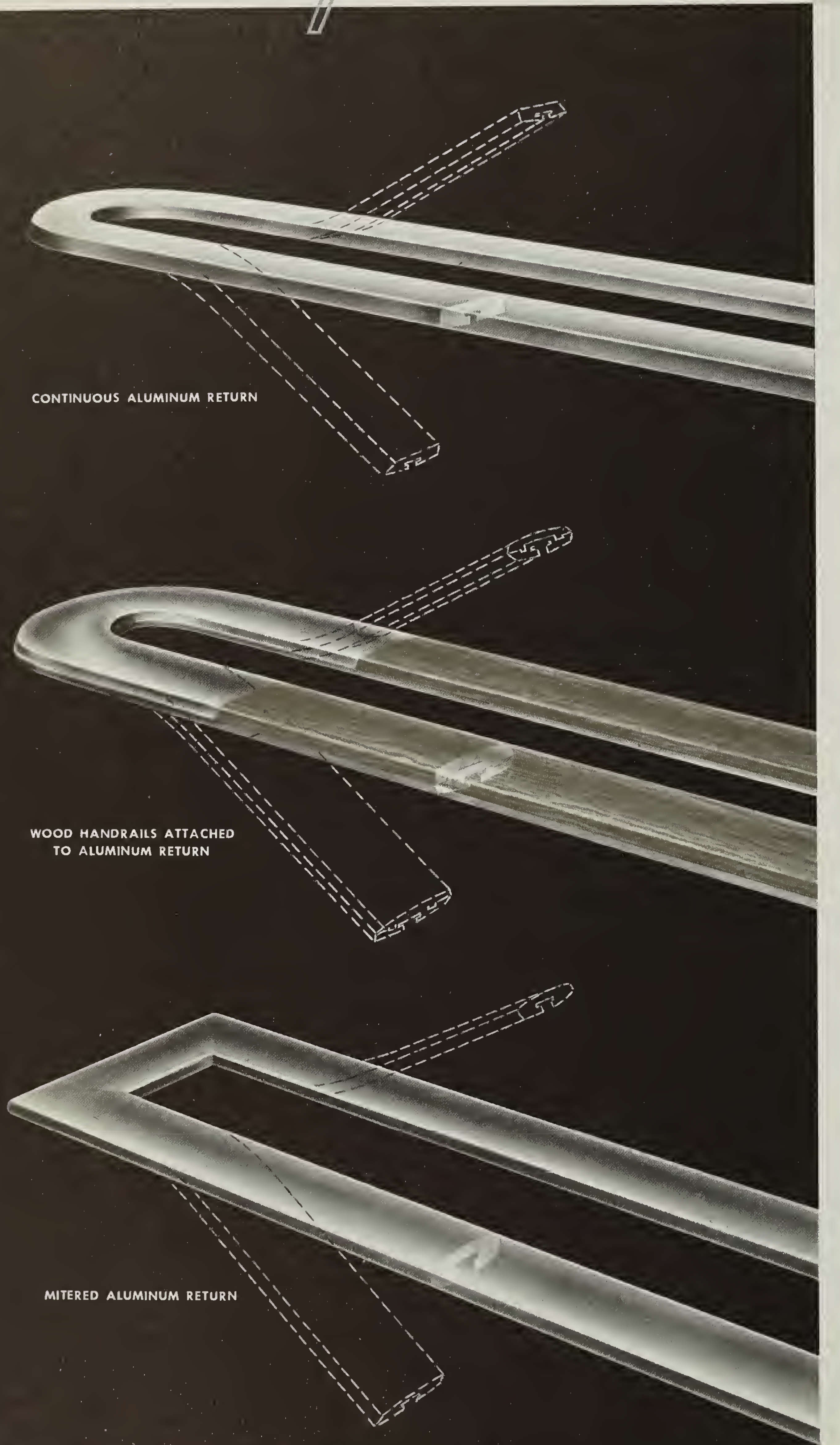
Fig. No. 704



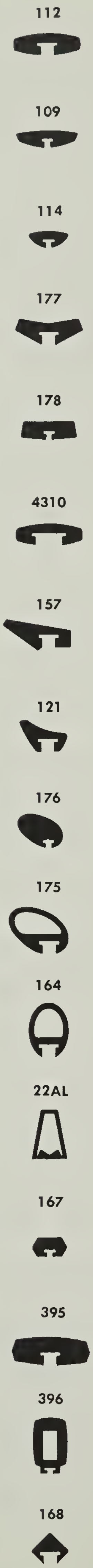
HANDRAIL WALLPLATE MOUNTED TO RISER

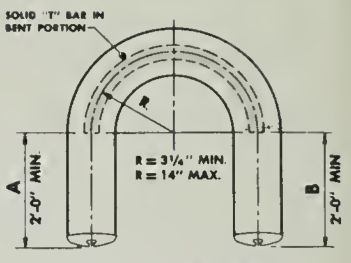
SCALE 1 1/2" = 1'-0"

TYPICAL RAIL TERMINATIONS


CONTINUOUS ALUMINUM RETURN
WOOD HANDRAILS ATTACHED TO ALUMINUM RETURN
MITERED ALUMINUM RETURN

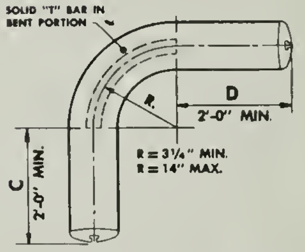
FLAT LATERAL BENDS AND MITERED RAILS FURNISHED BY BLUMCRAFT TO ANY DIMENSIONS.


112
109
114
177
178
4310
157
121
176
175
164
22AL
167
395
396
168


SOLID "T" BAR IN BENT PORTION
R.
R = 3¼" MIN.
R = 14" MAX.
A
2'-0" MIN.
B
2'-0" MIN.

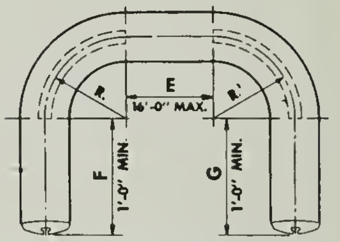
TOP VIEW-180° BEND

BENDS AVAILABLE TO FABRICATOR FROM ANY PORTION OF A 20'-0" BAR


SOLID "T" BAR IN BENT PORTION
R.
D
2'-0" MIN.
R = 3¼" MIN.
R = 14" MAX.
C
2'-0" MIN.

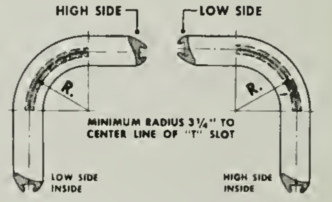
TOP VIEW-90° BEND

WHEN MADE FROM A 20'-0" BAR, ONE LEG OF 90° BEND NOT TO EXCEED 6'-0", FOR SHIPPING PURPOSES


E
16'-0" MAX.
R.
R.
F
1'-0" MIN.
G
1'-0" MIN.
R = 3¼" MIN. 14" MAX.

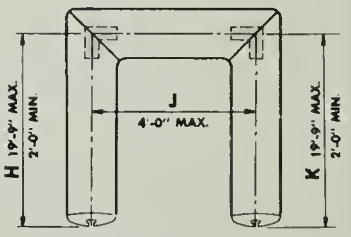
TOP VIEW-90° DOUBLE BENDS

AVAILABLE TO FABRICATOR FROM ANY PORTION OF A 20'-0" BAR


HIGH SIDE
LOW SIDE
R.
R.
MINIMUM RADIUS 3¼" TO CENTER LINE OF "T" SLOT
LOW SIDE INSIDE
HIGH SIDE INSIDE

TOP VIEW—90° BENDS

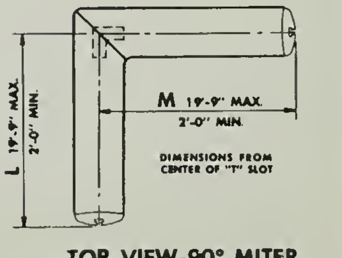
RAILS 121, 157, 175 AND 176


J
4'-0" MAX.
H 19'-9" MAX.
2'-0" MIN.
K 19'-9" MAX.
2'-0" MIN.

TOP VIEW-180° MITER

ALL MITERS WELDED

IF RAILING IS TO BE ANODIZED, DO NOT WELD. USE CORNER CONNECTORS.

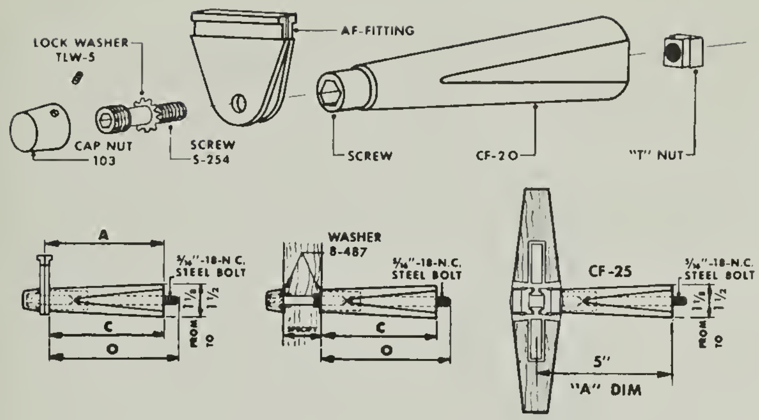

M 19'-9" MAX.
2'-0" MIN.
L 19'-9" MAX.
2'-0" MIN.
DIMENSIONS FROM CENTER OF "T" SLOT

TOP VIEW-90° MITER

ONE LEG OF 90° MITER NOT TO EXCEED 6'-0" FOR SHIPPING PURPOSES

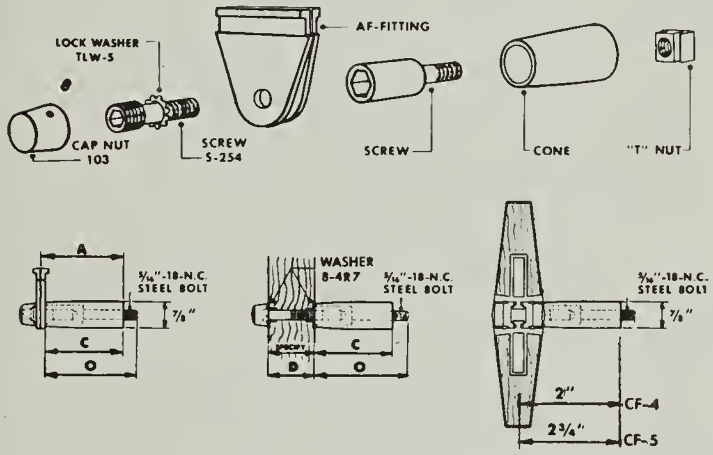
HANDRAIL DIMENSIONS FOR RAIL BENDS AND MITERS ARE FROM CENTERLINE OF "T" SLOT SPLICE RAILS ONLY AT CENTER OF WALL BRACKETS OR POSTS WITH SC CONNECTORS.

FULL SIZE SECTIONS REFER TO PAGES 146-149
FOR WOOD HANDRAILS REFER TO PAGE 10-11


LOCK WASHER TLW-5
AF-FITTING
CAP NUT 103
SCREW S-254
SCREW
CF-20
"T" NUT
A
C
O
5/16"-18-N.C. STEEL BOLT
1 1/8
1 1/2
FROM
TO
WASHER B-487
SPECIFY
CF-25
5"
"A" DIM

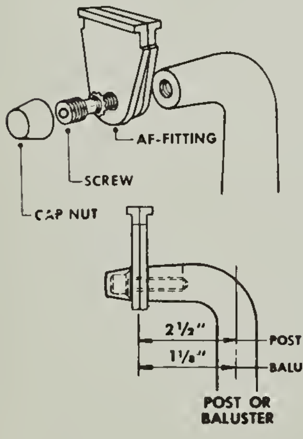
COMPONENTS FOR HEAVY-DUTY CF FITTINGS

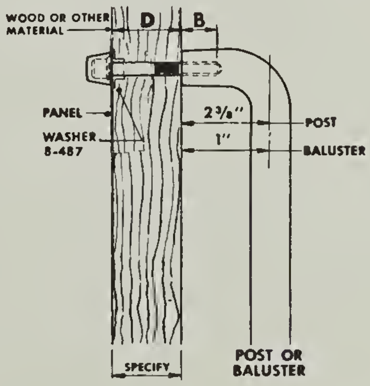
FITTING	A	C	SCREW		O
CF-20	5"	4 27/32"	210	CUT TO SIZE	5 3/8"
	10"	9 27/32"	219		10 3/8"
LENGTHS FROM 5" TO 10" USED FOR SLOTTED POSTS ONLY FOR ROUND POSTS USE CF-30					
SPECIAL LENGTH OF FITTINGS ON REQUEST					


LOCK WASHER TLW-5
AF-FITTING
CAP NUT 103
SCREW S-254
SCREW
CONE
"T" NUT
A
C
O
5/16"-18-N.C. STEEL BOLT
7/8"
WASHER B-4R7
SPECIFY
D
2"
2 3/4"
CF-4
CF-5

COMPONENTS FOR CF FITTINGS

FITTING	A	C	SCREW	O
CF-2	1 3/4"	1 19/32"	S-251	2 5/32"
CF-3	2 3/16"	2 1/32"	S-250	2 1/2"
CF-6	2 3/8"	2 15/32"	S-252	2 21/32"
CF-7	5"	4 27/32"	S-210	5 3/8"
SPECIAL LENGTH OF FITTINGS ON REQUEST				


AF-FITTING
SCREW
CAP NUT
2 1/2"
1 1/8"
POST
BALUSTER
POST OR BALUSTER

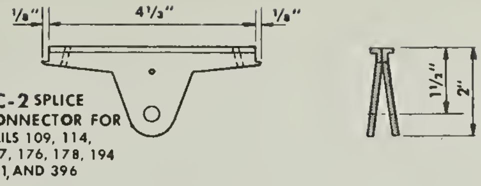

WOOD OR OTHER MATERIAL
D
B
PANEL
WASHER B-487
2 3/8"
1"
POST
BALUSTER
SPECIFY
POST OR BALUSTER

COMPONENTS FOR SP POST FITTINGS
SP-1 SP-6 SP-11

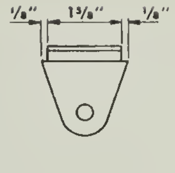
CAP NUT	SCREW	LOCK WASHER	D	B	PANEL SCREW
103	S-254	TLW-5	3/4" TO 2 3/4"	13/16"	S-244 CUT TO SIZE

COMPONENTS FOR BALUSTER FITTINGS
SP-2 SP-3 SP-4 SP-5 PB-2

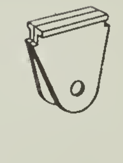
CAP NUT	SCREW	LOCK WASHER	D	B	PANEL SCREW
104	S-253	NONE	3/8" TO 2 3/4"	7/16"	S-233 CUT TO SIZE

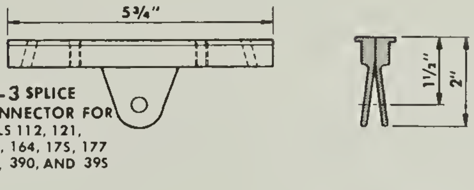

1/8"
4 1/3"
1/8"
1 1/2"
2"

SC-2 SPLICE CONNECTOR FOR RAILS 109, 114, 167, 176, 178, 194 391, AND 396

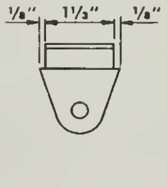


AF-1 FITTING FOR RAILS 109, 114, 167, 178, 391, AND 396

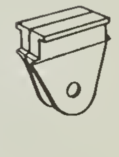


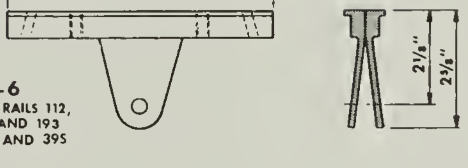


SC-3 SPLICE CONNECTOR FOR RAILS 112, 121, 157, 164, 175, 177 193, 390, AND 395

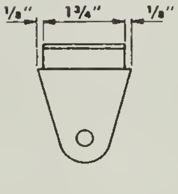


AF-2 FITTING FOR RAILS 112, 121, 157, 164, 168, 175, 177 193, 390, AND 395

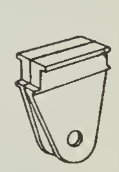


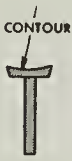


SC-6 FOR RAILS 112, 157 AND 193 390, AND 395

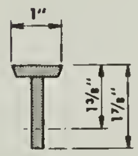


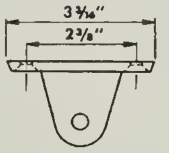
AF-6 FITTING FOR RAILS 112, 121, 157, 164, 168, 175, 177 193, 390, AND 395



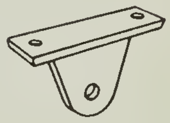


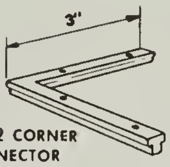
AF-3-C FITTING CONTOURED FOR WOOD AND NONSLOTTED HANDRAILS



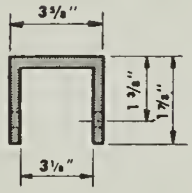


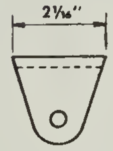
AF-3-F FITTING FLAT FOR WOOD AND NONSLOTTED HANDRAILS



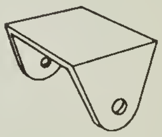


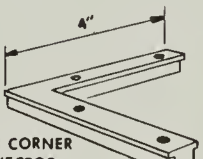
CC-2 CORNER CONNECTOR FOR RAILS 109, 114, 167, 176, 178, 194, 391, AND 396


3 5/8"
1 3/8"
1 7/8"
3 1/8"

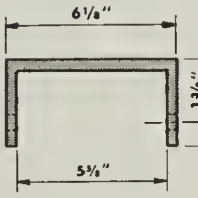


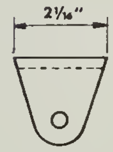
AF-4 FITTING FOR WOOD AND NONSLOTTED HANDRAILS WITH POST NW-4



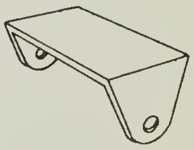


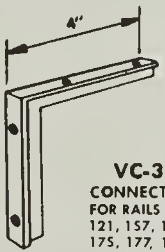
CC-3 CORNER CONNECTOR FOR RAILS 112, 121, 157, 164, 175, 177, 193 390, AND 395


6 1/8"
1 3/8"
1 7/8"
5 5/8"

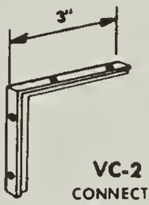


AF-5 FITTING FOR WOOD AND NONSLOTTED HANDRAILS WITH POST NW-5

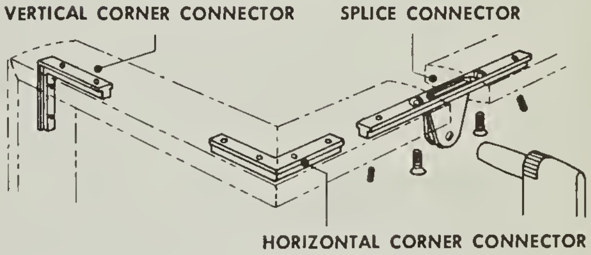




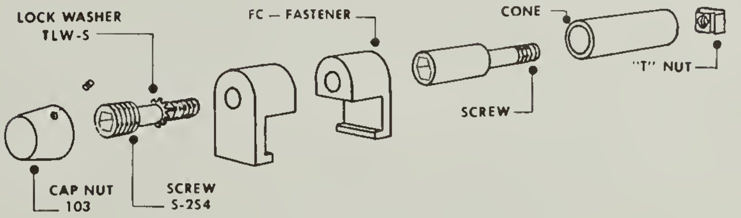
VC-3 CONNECTOR FOR RAILS 112, 121, 157, 164, 175, 177, 193 390, AND 395

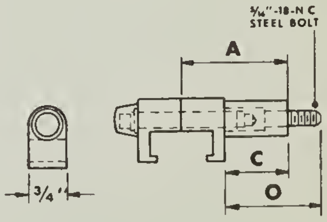


VC-2 CONNECTOR FOR RAILS 109, 114, 167, 176, 178, 194, 391, AND 396

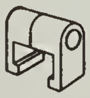

VERTICAL CORNER CONNECTOR
SPLICE CONNECTOR
HORIZONTAL CORNER CONNECTOR

SC CONNECTORS ARE USED IN PLACE OF AF-FITTINGS

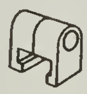

LOCK WASHER TLW-5
FC — FASTENER
CONE
"T" NUT
SCREW
CAP NUT 103
SCREW S-254


5/16"-18-N C STEEL BOLT
A
C
O
3/4"

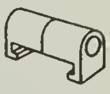
FC-1 FASTENER FOR PANELS WITH WF-1 FRAME



FC-2 FASTENER FOR PANELS WITH WF-2 FRAME

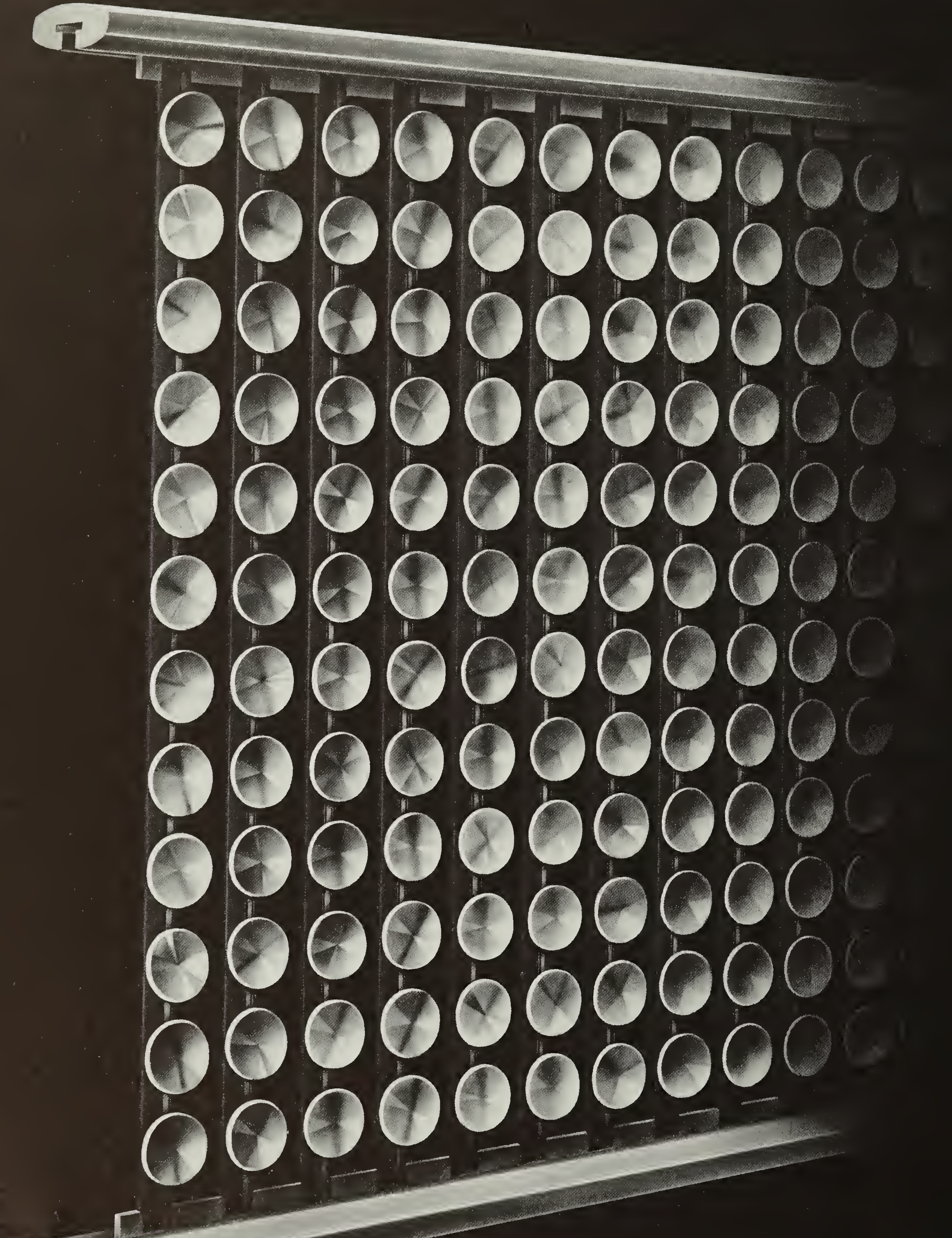


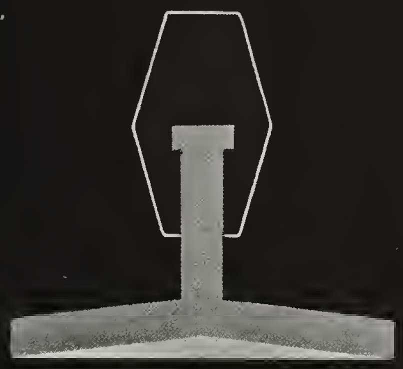
FC-4 FASTENER FOR PANELS WITH WF-4 TRIM



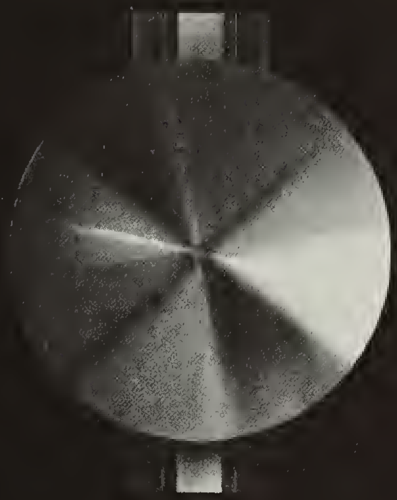
COMPONENTS FOR F C FITTING

	FC-1						FC-2						FC-4					
CONE NO.	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7
A	1 3/4"	2 3/16"	2"	2 3/4"	2 5/8"	5"	1 3/4"	2 3/16"	2"	2 3/4"	2 5/8"	5"	1 3/4"	2 3/16"	2"	2 3/4"	2 5/8"	5"
C	7/8"	1 5/16"	1 1/8"	1 7/8"	1 3/4"	4 1/8"	1 1/16"	1 1/2"	1 5/16"	2 1/16"	1 15/16"	4 5/16"	1/2"	15/16"	3/4"	1 1/2"	1 3/8"	3 3/4"
O	1 1/2"	1 7/8"	1 11/16"	2 7/16"	2 5/16"	4 11/16"	1 5/8"	2 1/16"	1 7/8"	2 5/8"	2 1/2"	4 7/8"	1 1/16"	1 1/2"	1 5/16"	2 1/16"	1 15/16"	4 5/16"
SPECIAL LENGTH OF FITTINGS ON REOUEST																		

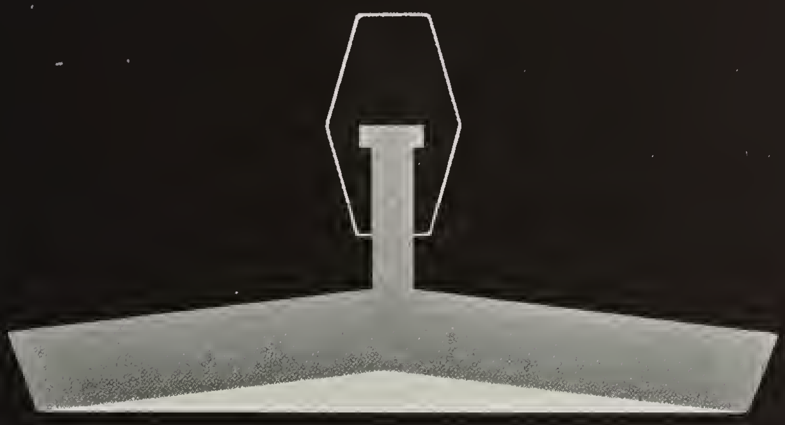




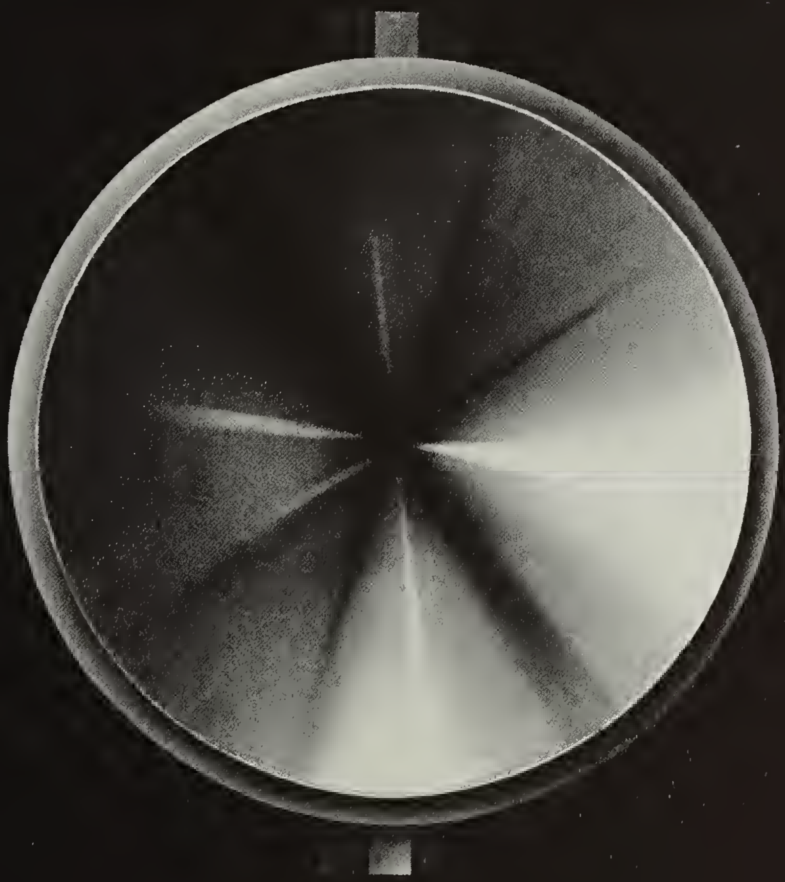
SECTION



FULL SIZE FACET STYLE "R"



SECTION



FULL SIZE FACET STYLE "C"

3 DIMENSIONAL GRILLES

SCULPTURED · WITH STRUCTURAL DEPTH SPARKLING FACETS FLOATING STURDILY IN SPACE.

LESS COSTLY · THAN CUSTOM BUILT GRILLES

SUGGESTED SPECIFICATIONS

The Miscellaneous Metal Contractor shall furnish and install the GRILL-O-METRIC panels where indicated on the working drawings.

The grille facets shall have a 204-A2 clear polished anodize finish, (or 145 polished gold anodize finish). The backs of the facets are to have a brushed finish, not polished.

The back-ground supporting bars are to have a dull black anodize finish.

Where panels exceed 36" in height, horizontal or vertical tie rods are to be inserted through supporting bar members, as required.

GRILL-O-METRICS are to be furnished in strict accordance with the Manufacturers details as shown in catalogue M-64 of BLUMCRAFT OF PITTSBURGH, 460 Melwood Street, Pittsburgh 13, Pa., and as published in Sweet's Architectural File 6e/Blu. The Miscellaneous Metal Contractor shall be responsible for the workmanship, finish and rigidity of the installation.....

.....and shall forward shop drawings to BLUMCRAFT OF PITTSBURGH for manufacturer's recommendations, prior to submission for architect's approval.

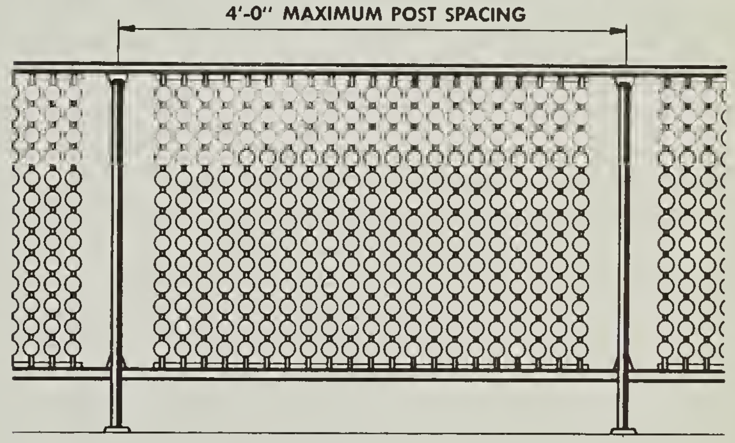


FIG. 597 PANELS RECESSED IN RAILS STYLE "R"

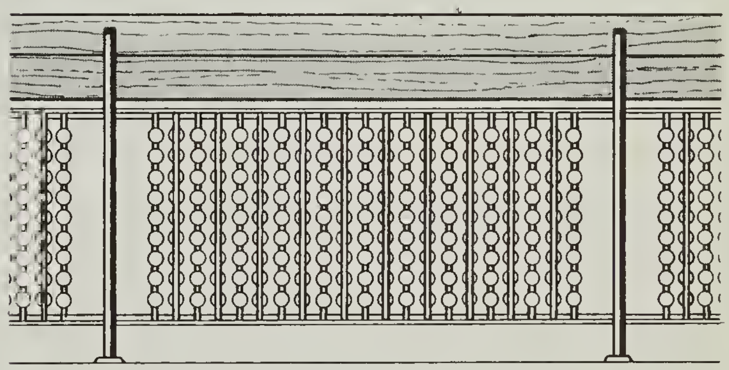


FIG. 598 FLOATING PANELS STYLE "R" FACETS ALTERNATED

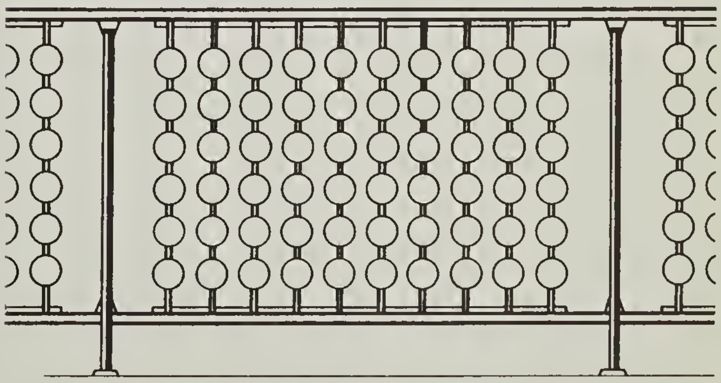


FIG. 599 PANELS RECESSED IN RAILS STYLE "C"

DETAILS ON PAGES 100 AND 101

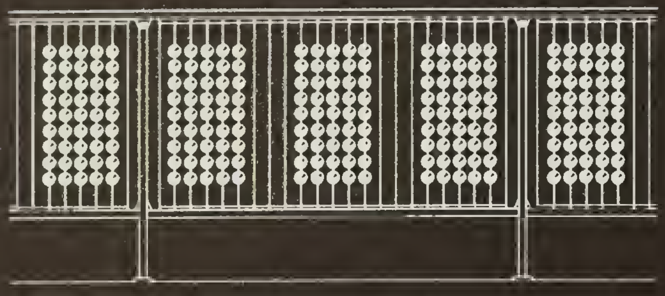


FIG. 600 STYLE "R" FACET

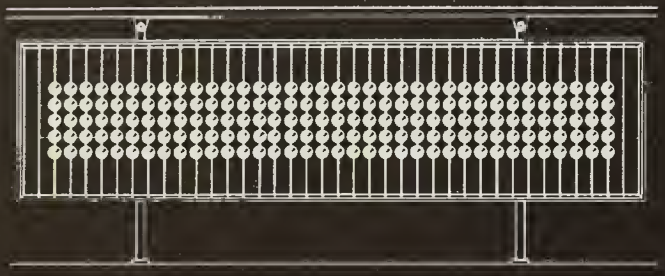


FIG. 601 STYLE "R" FACET

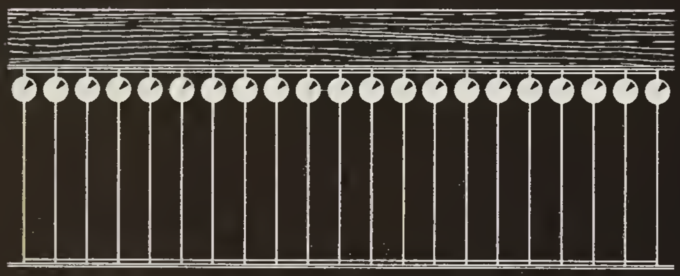


FIG. 602 STYLE "C" FACET

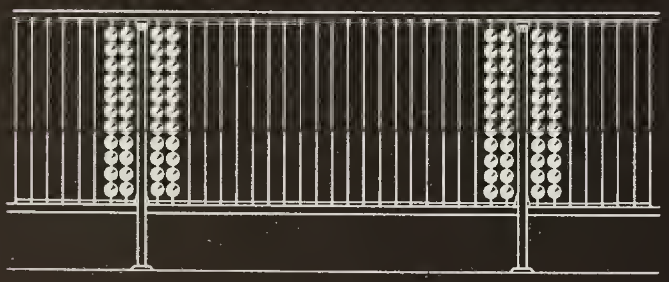


FIG. 603 STYLE "R" FACET

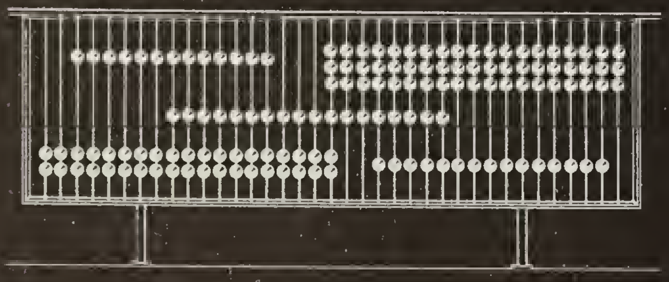


FIG. 604 STYLE "R" FACET

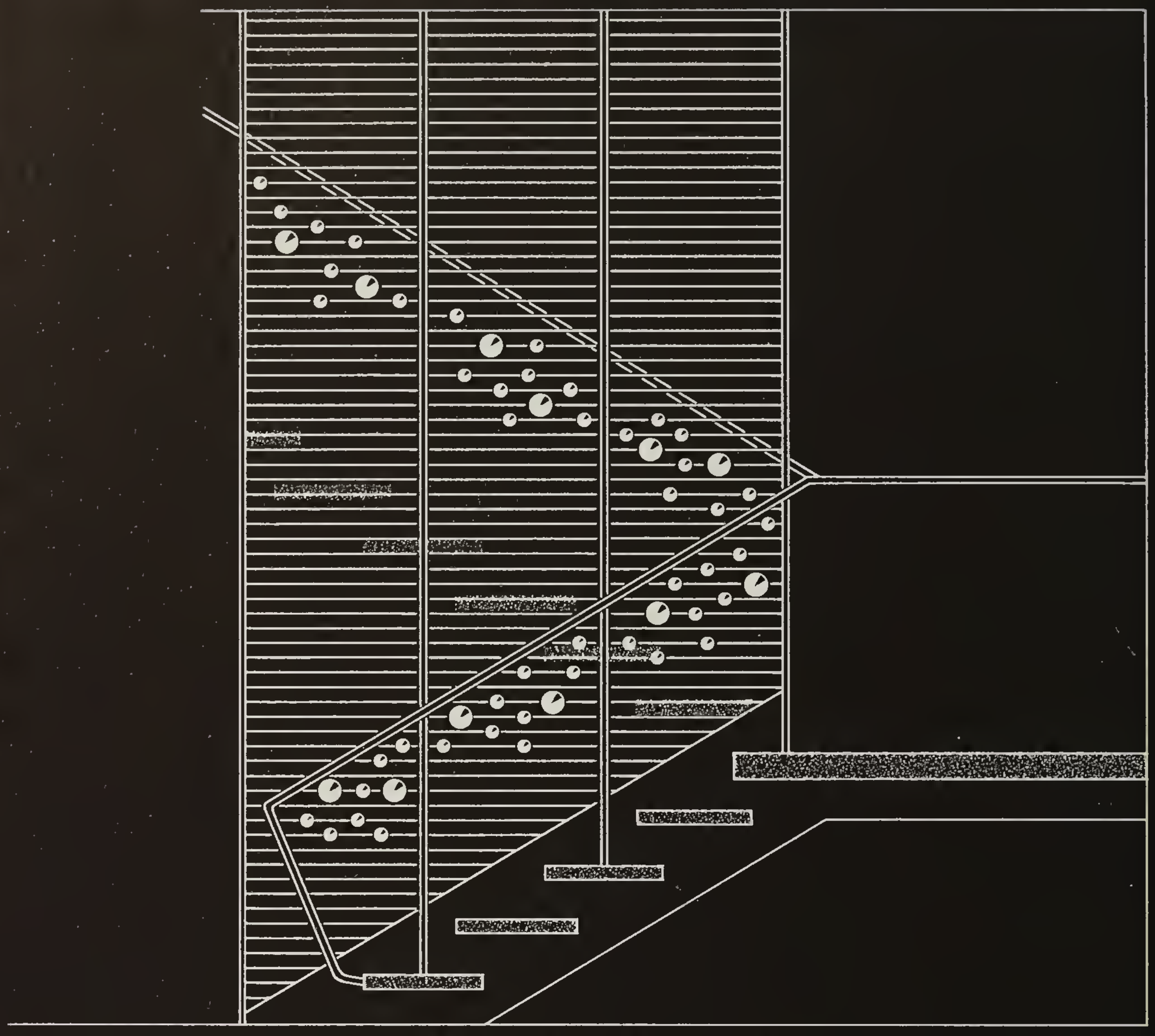
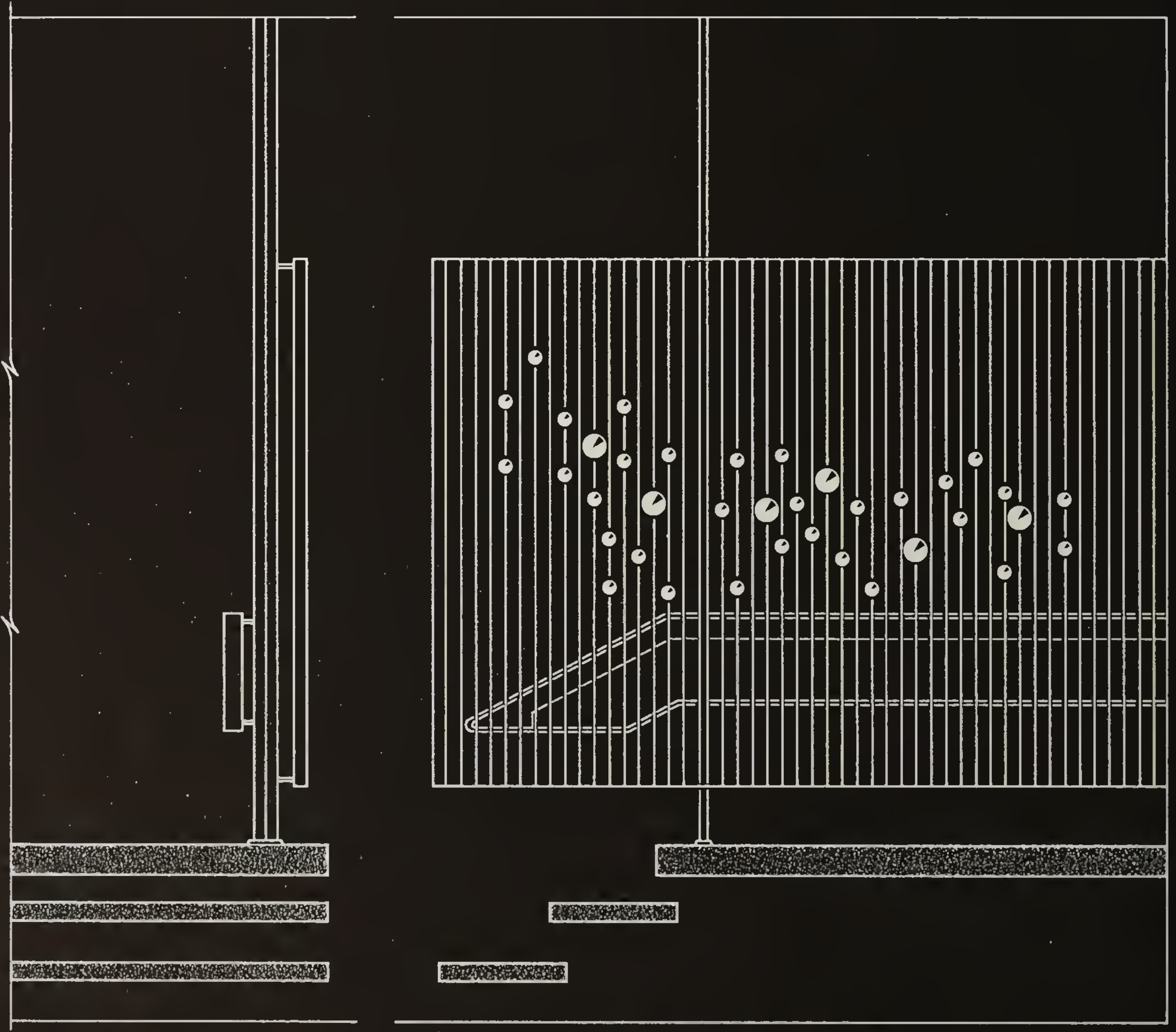
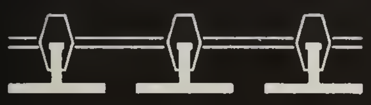


FIG. 605 COMBINATION OF STYLE "R" AND "C" FACETS

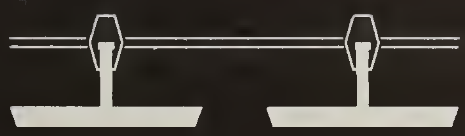


END ELEVATION

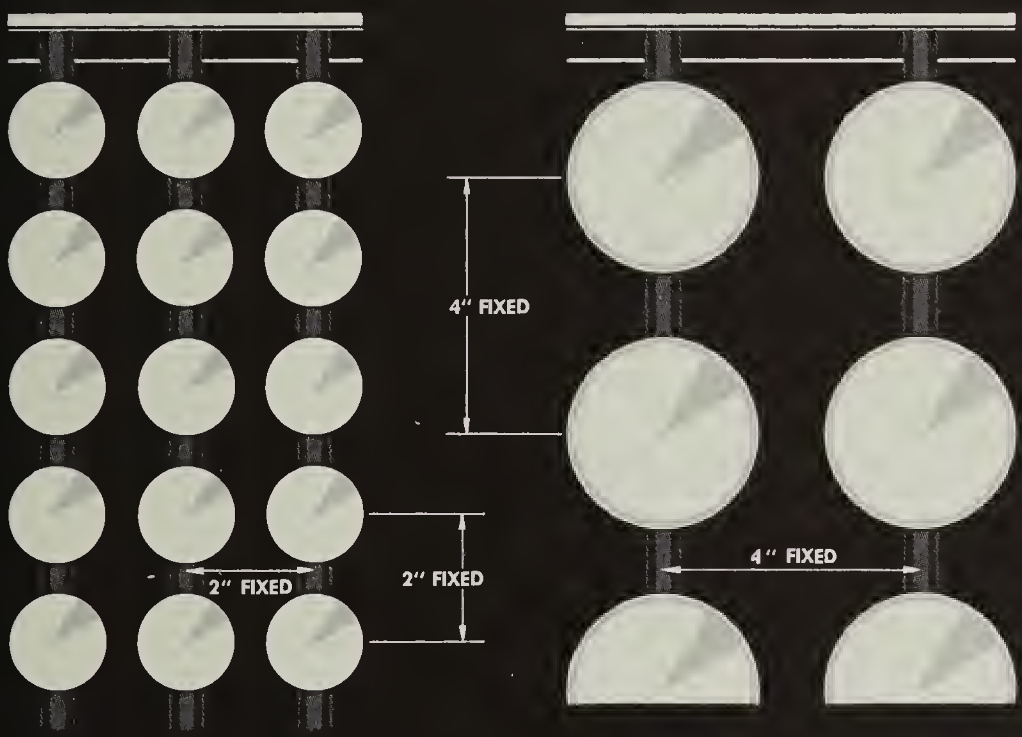
FIG. 606 COMBINATION OF STYLE "R" AND "C" FACETS



SINGLE FACE STYLE "R"

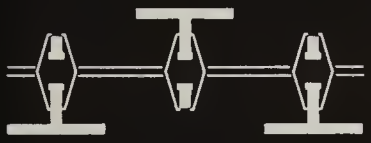


SINGLE FACE STYLE "C"

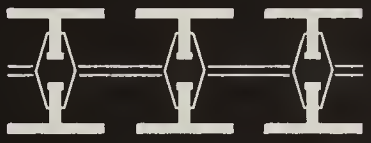

4" FIXED
2" FIXED
2" FIXED
4" FIXED

STYLE "R"

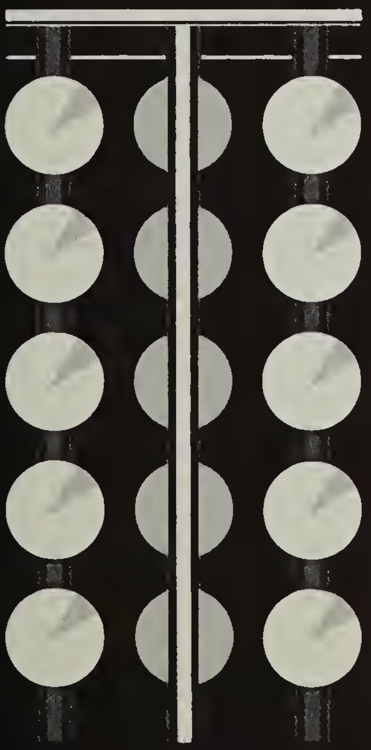
STYLE "C"



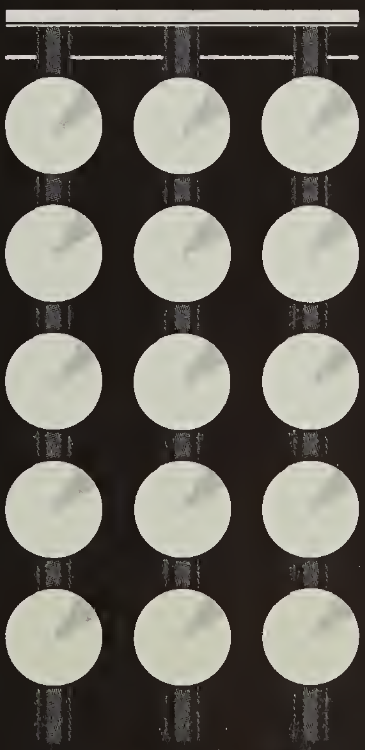
ALTERNATE FACE



DOUBLE FACE STYLE "R"

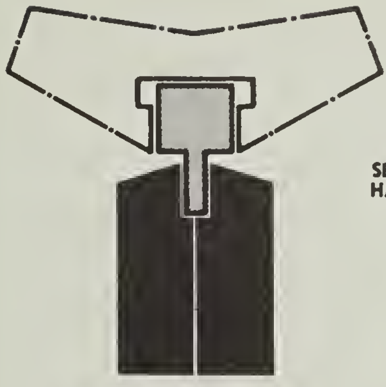


STYLE "R" ALTERNATED



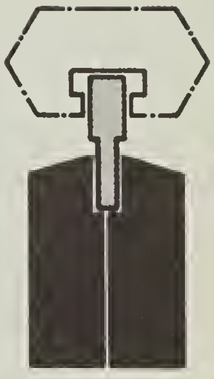
DOUBLE FACE STYLE "R"

SCALE 3" = 1'-0"

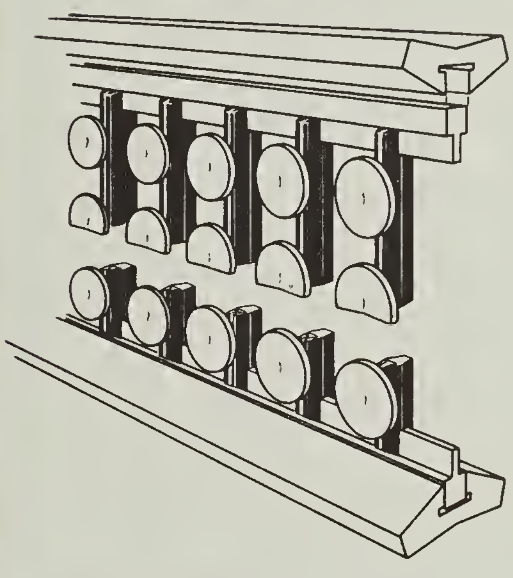


220 FRAME
FOR WIDE SLOTTED HANDRAILS

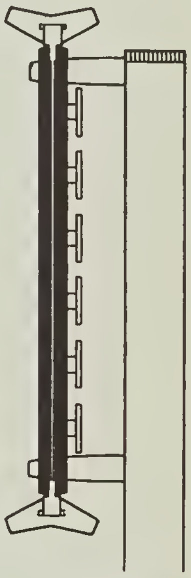
SECTIONS HALF-SIZE



221 FRAME
FOR NARROW SLOTTED HANDRAILS

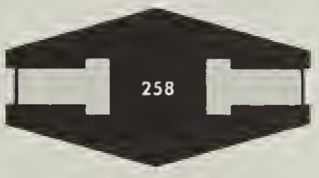


RECESSED PANEL ASSEMBLY

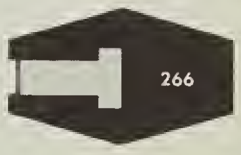


SIDE ELEVATION

SCALE 1½" = 1'-0"

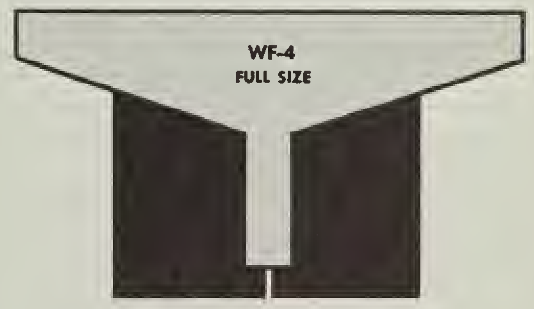


FULL SIZE SECTIONS

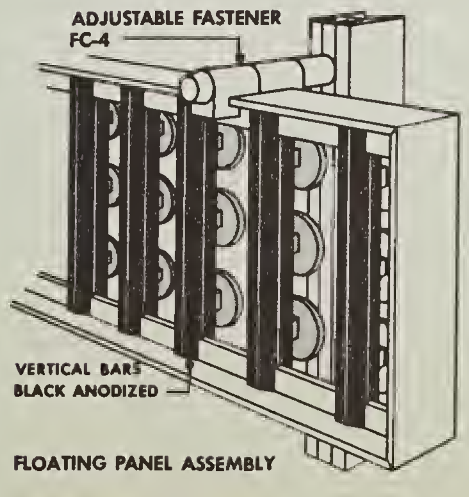


SUPPORTING BAR DOUBLE FACE

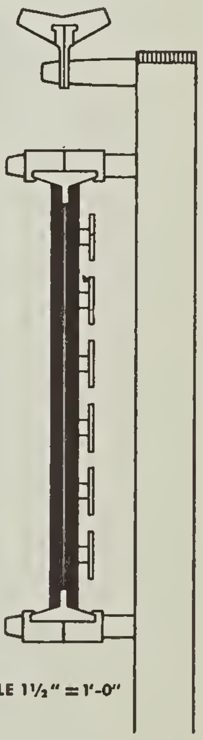
SUPPORTING BAR SINGLE FACE


WF-4
FULL SIZE

WF-4 TRIM FOR FLOATING PANELS

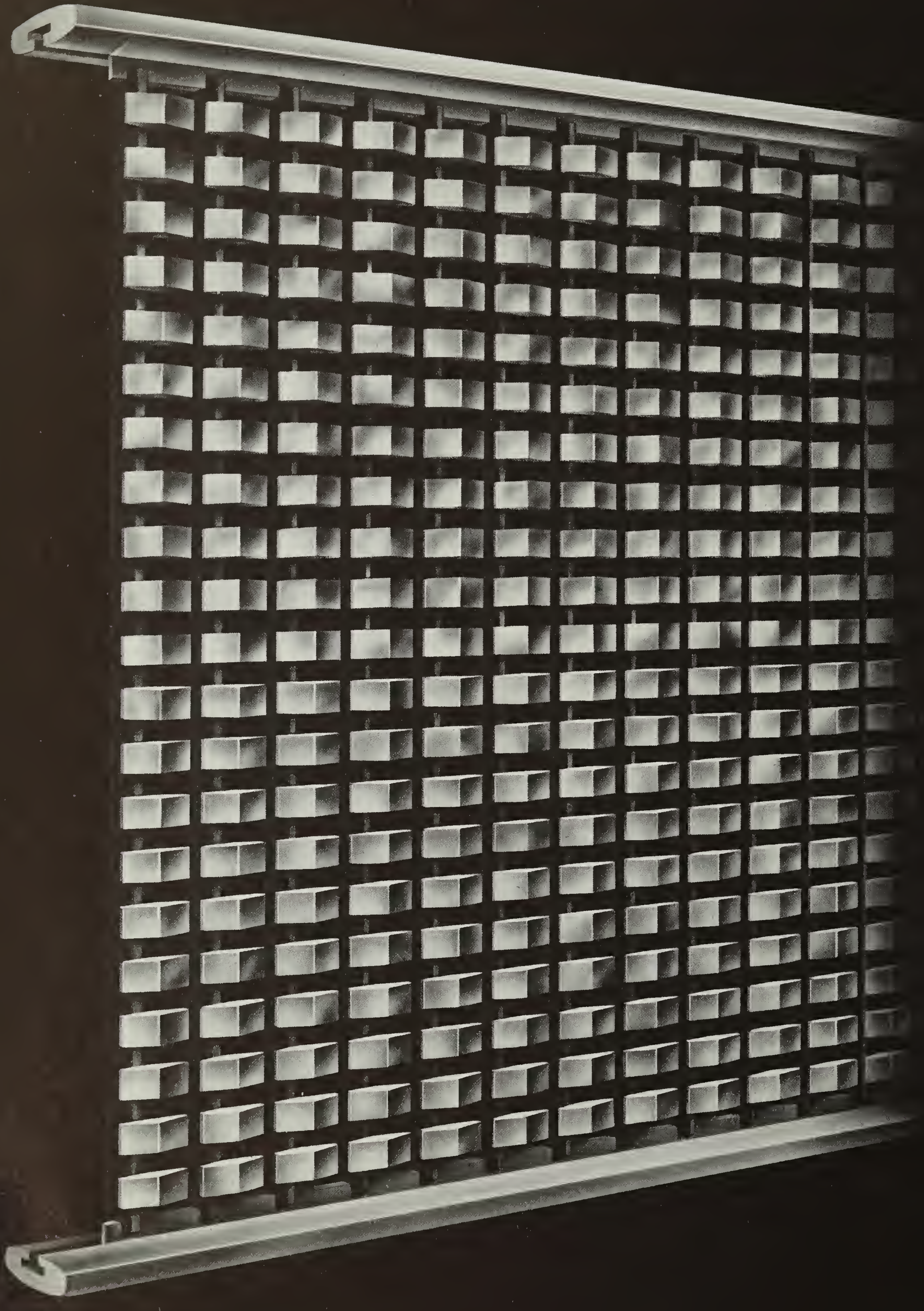

ADJUSTABLE FASTENER
FC-4
VERTICAL BARS
BLACK ANODIZED

FLOATING PANEL ASSEMBLY



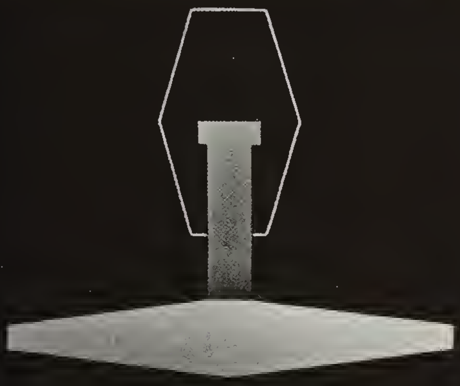
SCALE 1½" = 1'-0"

SIDE ELEVATION

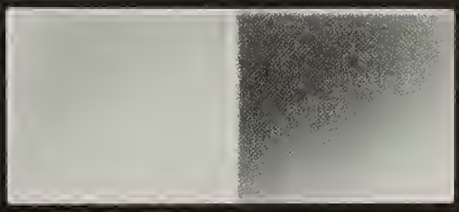


STYLE "D"

D E L U X E - L I N E



SECTION



FULL SIZE FACET STYLE "D"

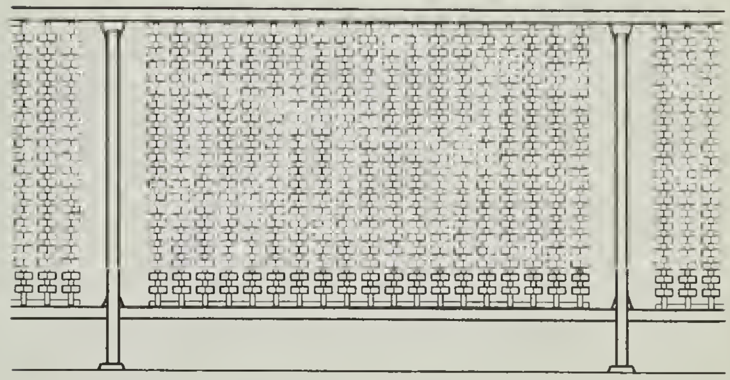
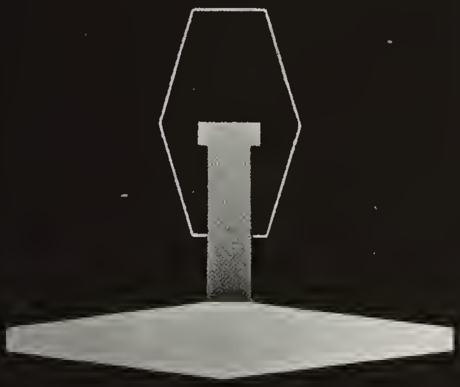
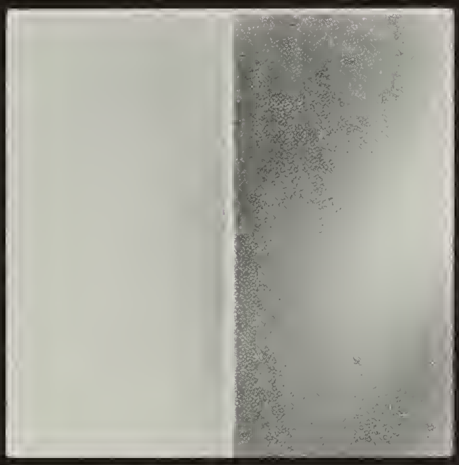


FIG. 607 PANELS RECESSED IN RAILS STYLE "D"



SECTION



FULL SIZE FACET STYLE "S"

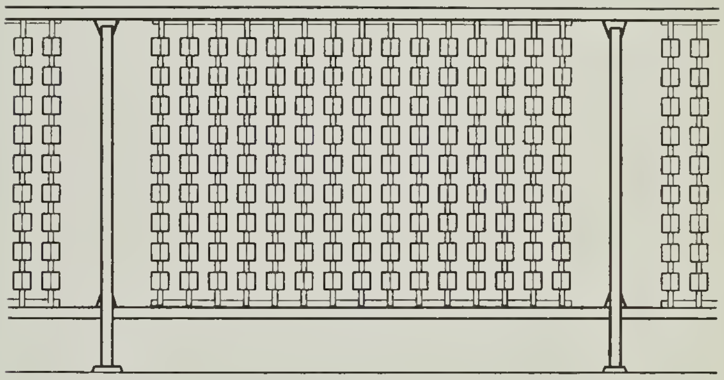
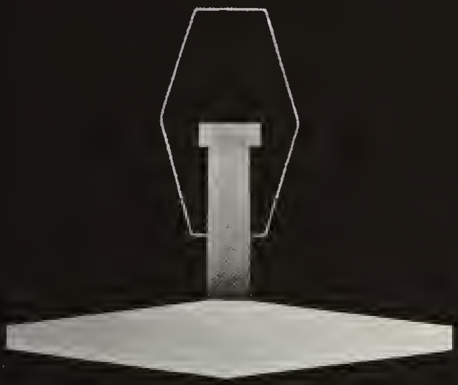


FIG. 608 PANELS RECESSED IN RAILS STYLE "S"

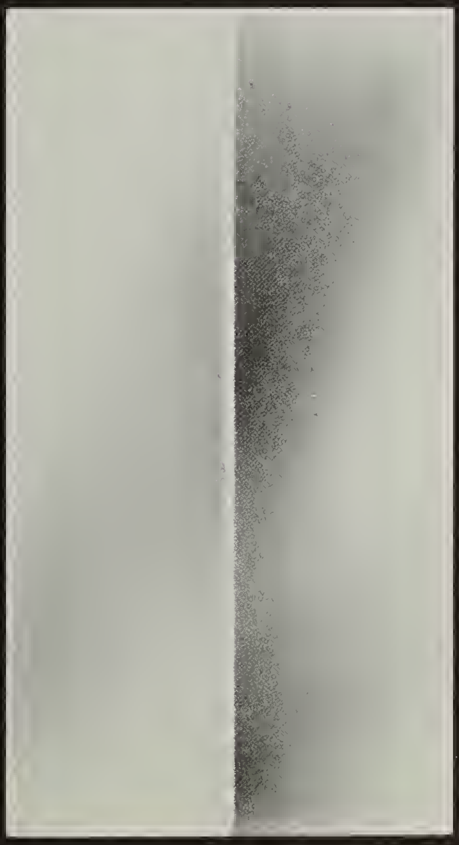
GRILLES BUILT TO FABRICATORS' DIMENSIONS BY BLUMCRAFT

FOR OTHER APPLICATIONS SEE ROOM DIVIDERS PAGE 123



SECTION

ARCHITECTS MAY CREATE ORIGINAL PATTERN ARRANGEMENTS WITH STOCK FACETS. SUGGESTED DESIGNS ON FOLLOWING PAGES.



FULL SIZE FACET STYLE "V"

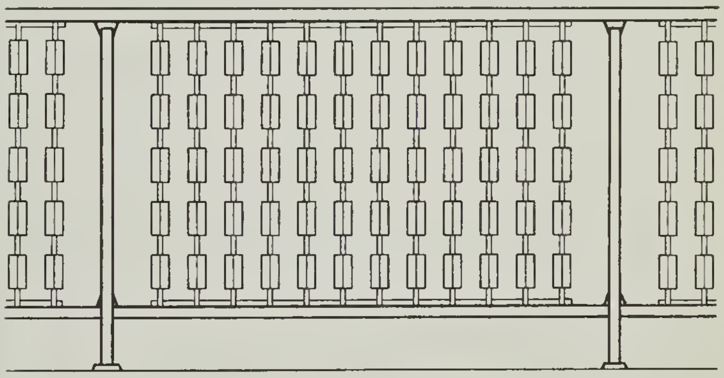


FIG. 609 PANELS RECESSED IN RAILS STYLE "V"

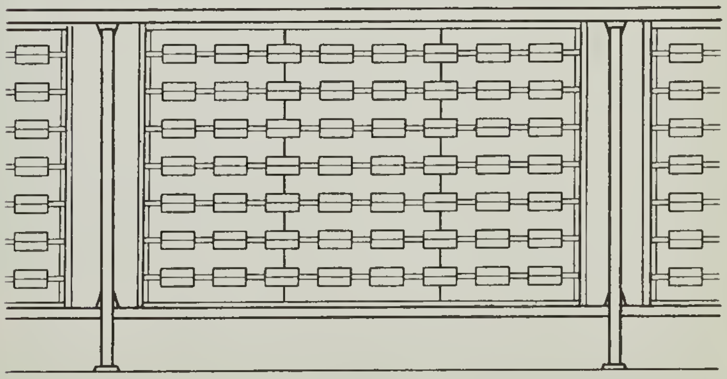


FIG. 610 PANELS RECESSED IN RAILS STYLE "V" HORIZONTAL

DETAILS ON PAGES 104 AND 105

SCALE $1/2'' = 1'$-$0''$

*TRADEMARK

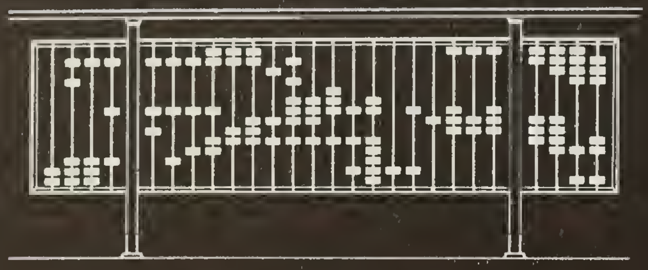


FIG. 611 STYLE "D" FACET

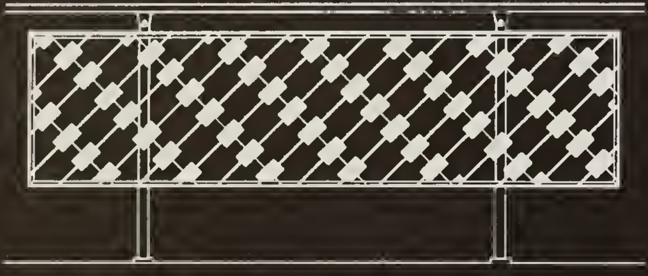


FIG. 612 STYLE "V" FACET

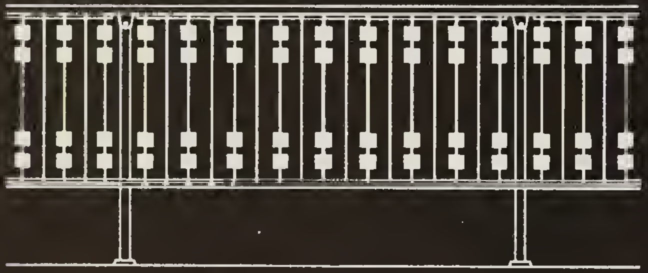


FIG. 613 STYLE "S" FACET

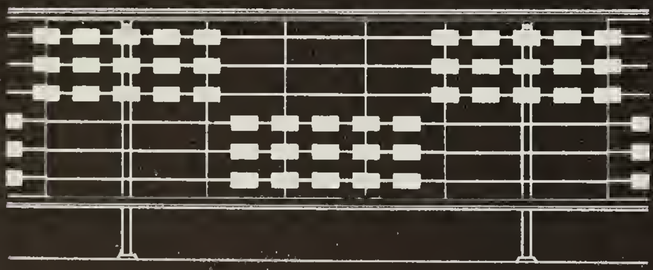


FIG. 614 STYLE "V" FACET

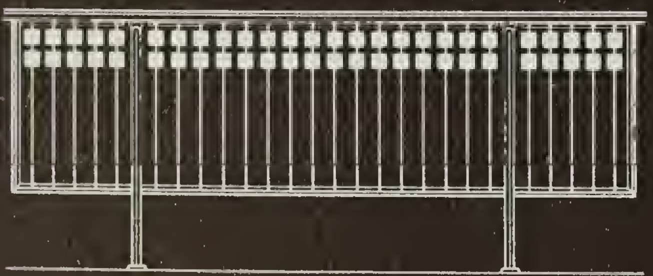
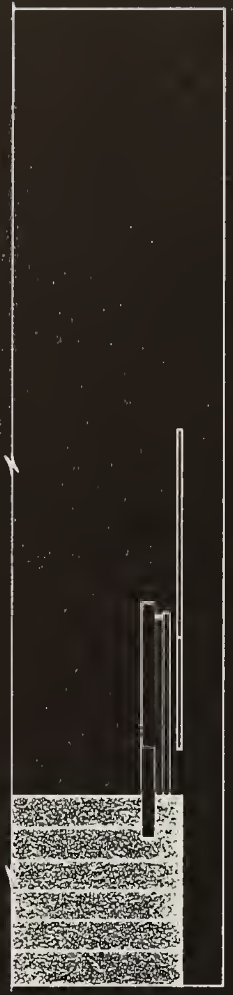


FIG. 615 STYLE "S" FACET



END ELEVATION

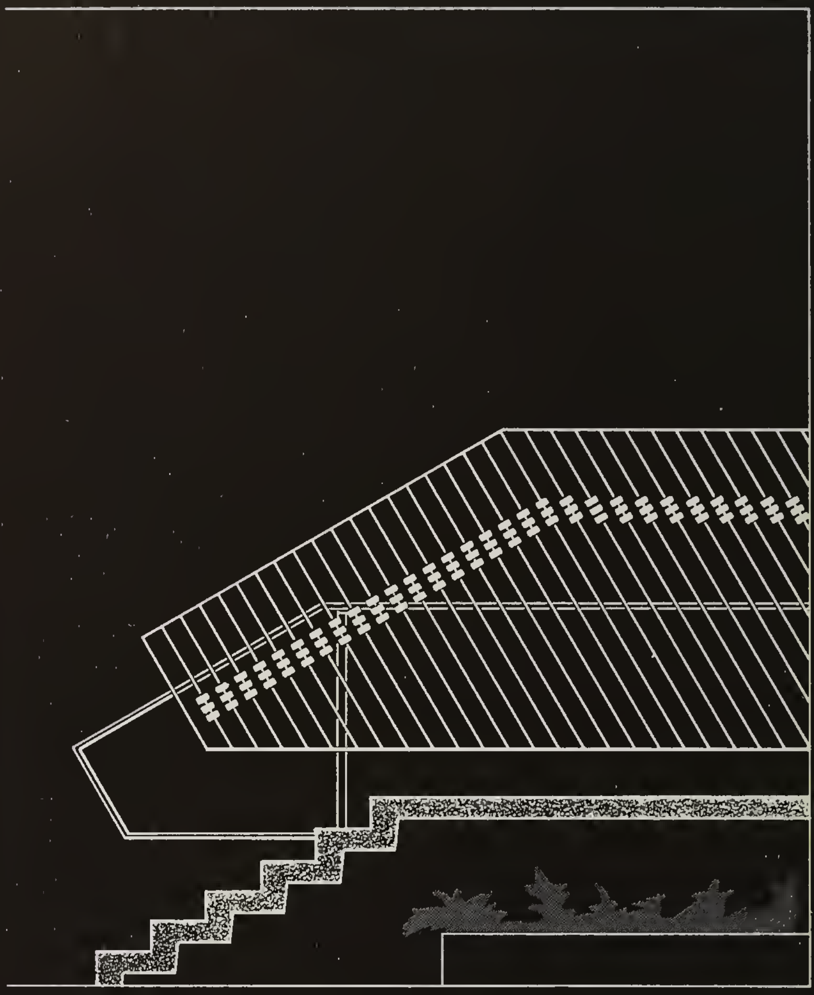


FIG. 616 STYLE "D" FACET

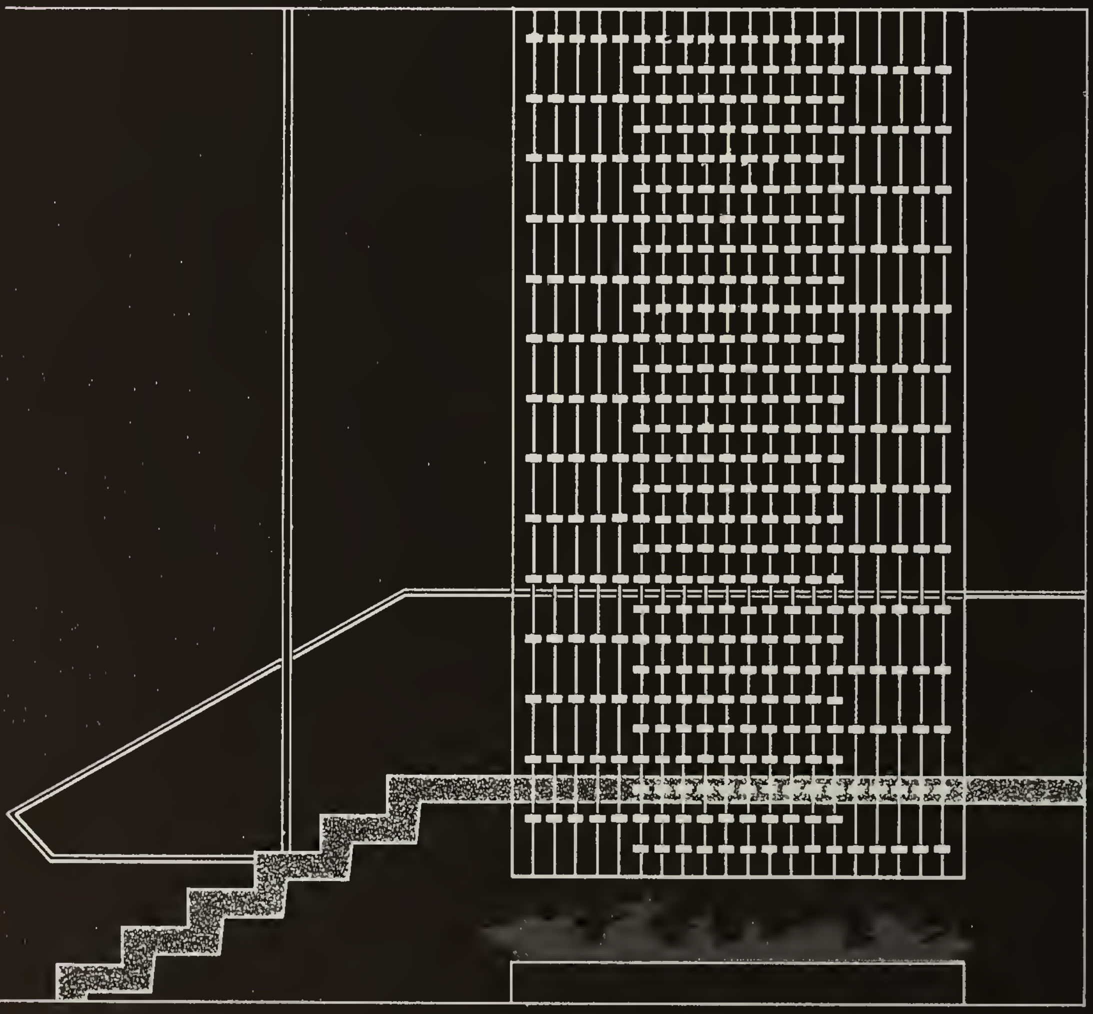
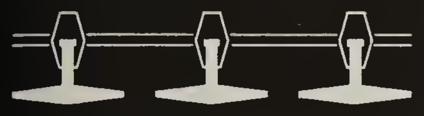
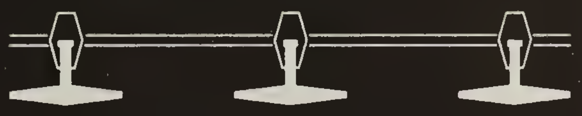


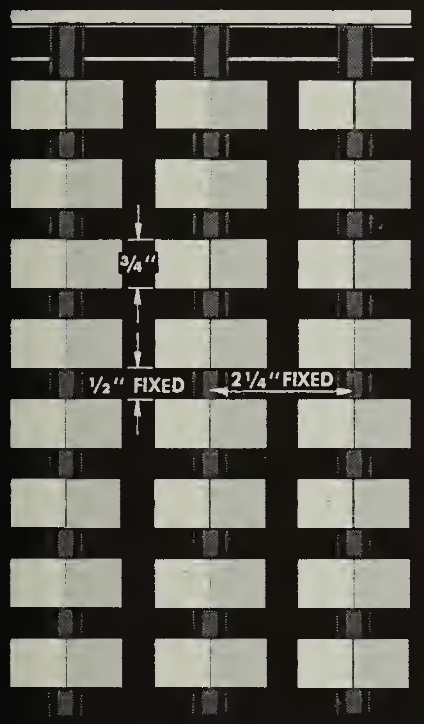
FIG. 617 STYLE "D" FACET



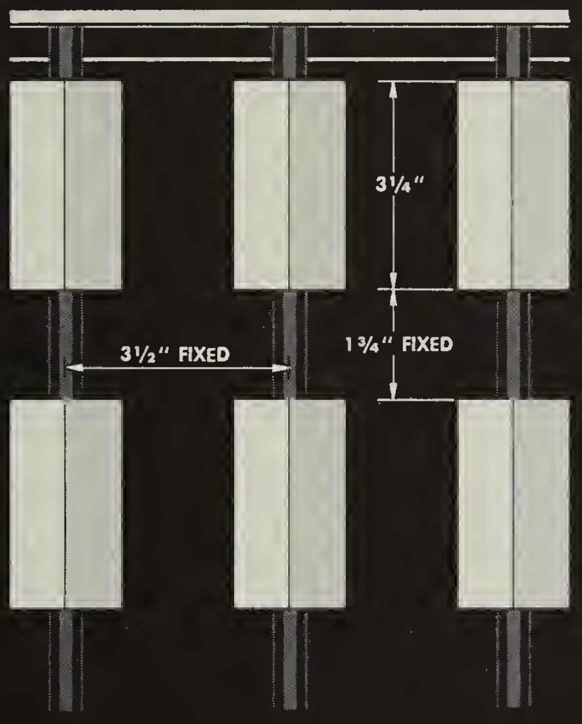
SINGLE FACE STYLE "D"



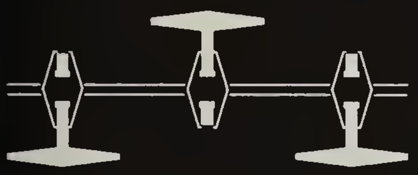
SINGLE FACE STYLE "V"


3/4"
1/2" FIXED
2 1/4" FIXED

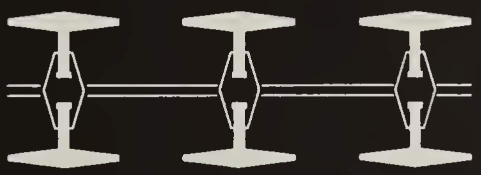
STYLE "D"


3 1/4"
3 1/2" FIXED
1 3/4" FIXED

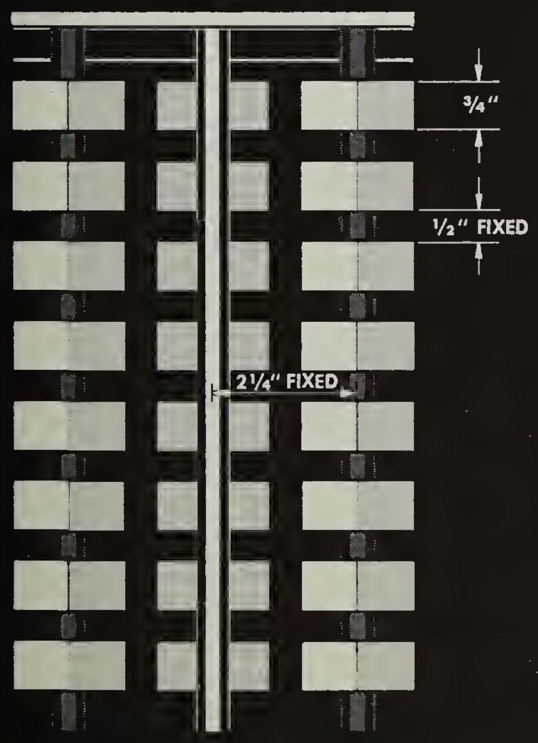
STYLE "V"



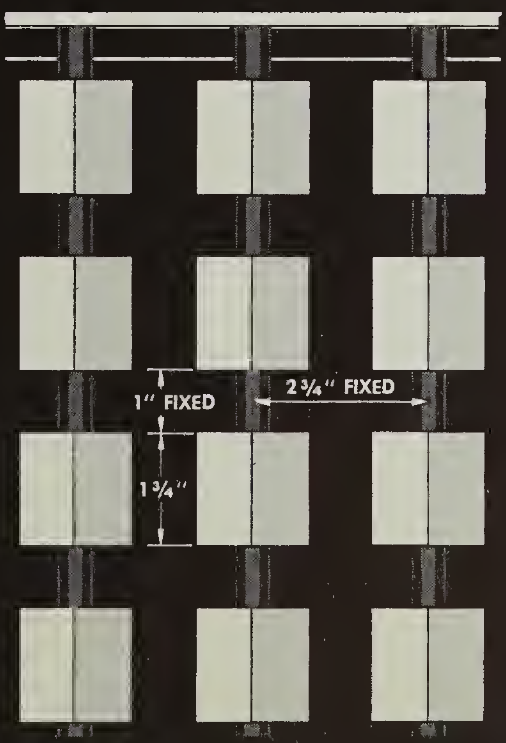
ALTERNATE FACE



DOUBLE FACE STYLE "S"


3/4"
1/2" FIXED
2 1/4" FIXED

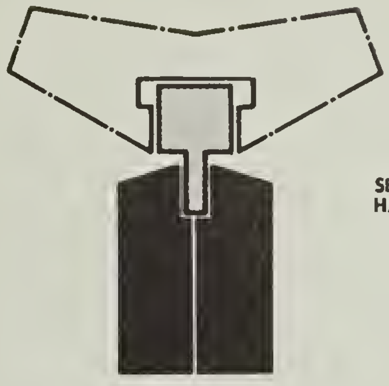
STYLE "D"


1" FIXED
2 3/4" FIXED
1 3/4"

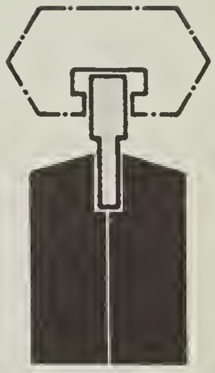
STYLE "S"

SCALE 3" = 1'-0"

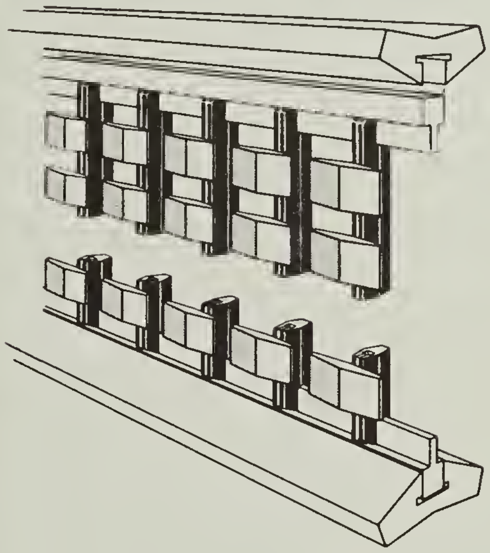
SECTIONS HALF-SIZE



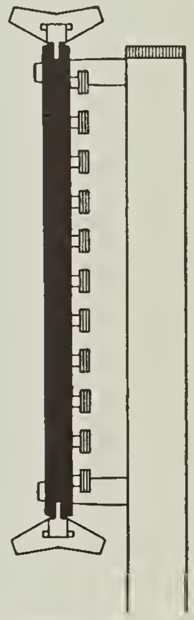
220 FRAME
FOR WIDE SLOTTED HANDRAILS



221 FRAME
FOR NARROW SLOTTED HANDRAILS

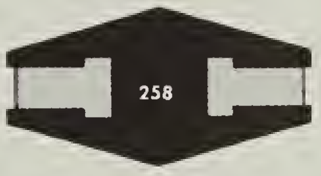


RECESSED PANEL ASSEMBLY

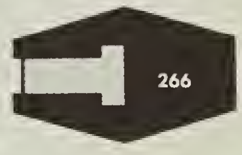


SECTION

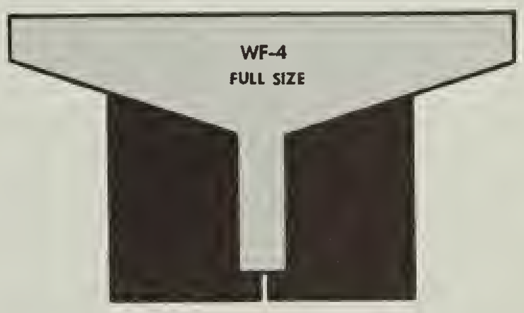
FULL SIZE SECTIONS



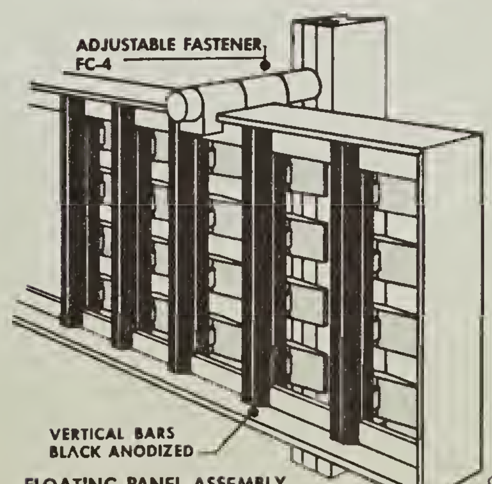
SUPPORTING BAR DOUBLE FACE



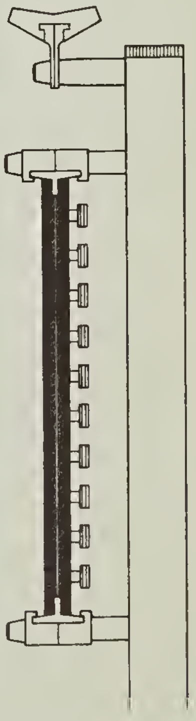
SUPPORTING BAR SINGLE FACE


WF-4
FULL SIZE

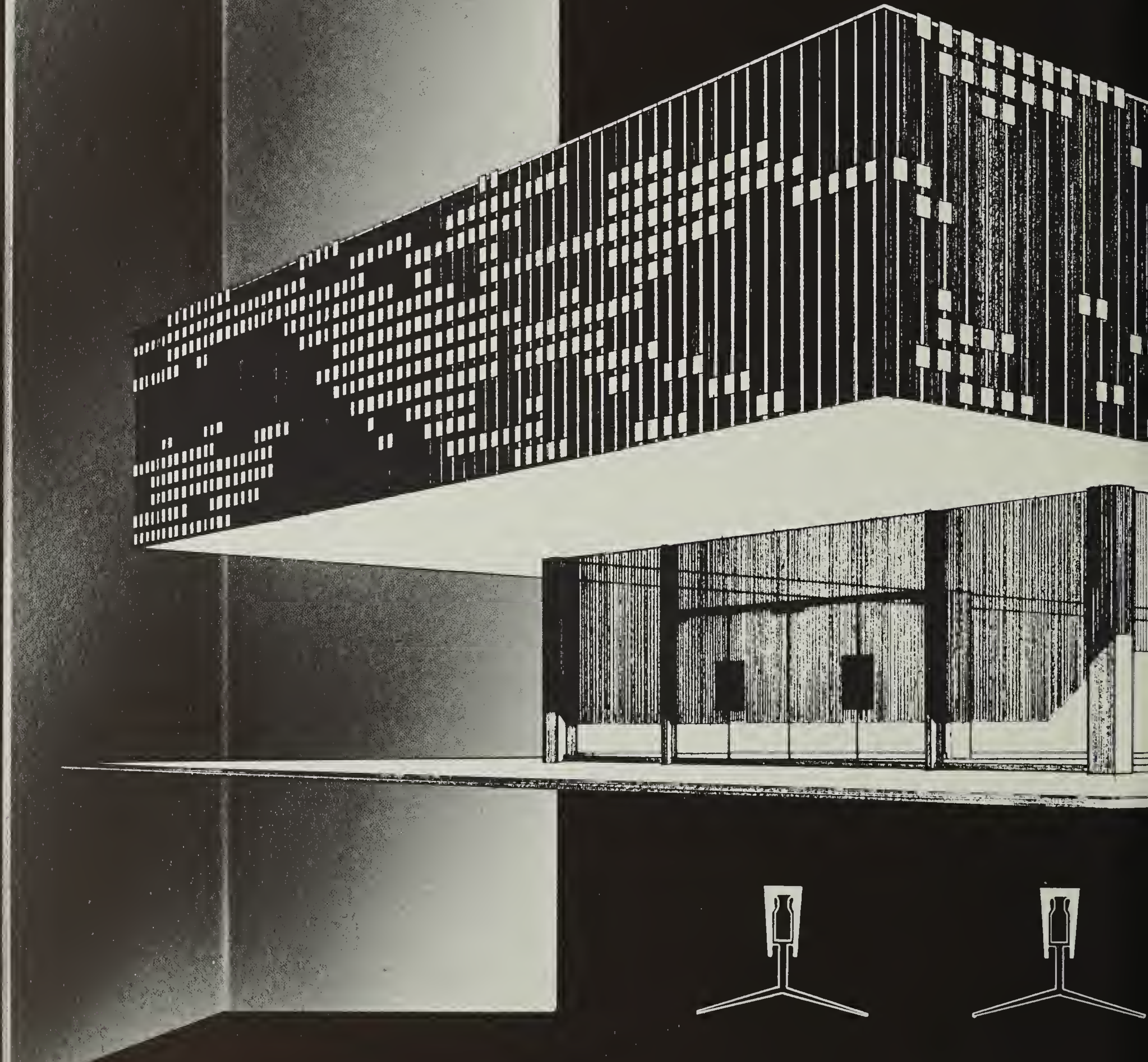
WF-4 TRIM FOR FLOATING PANELS


ADJUSTABLE FASTENER FC-4
VERTICAL BARS BLACK ANODIZED

FLOATING PANEL ASSEMBLY

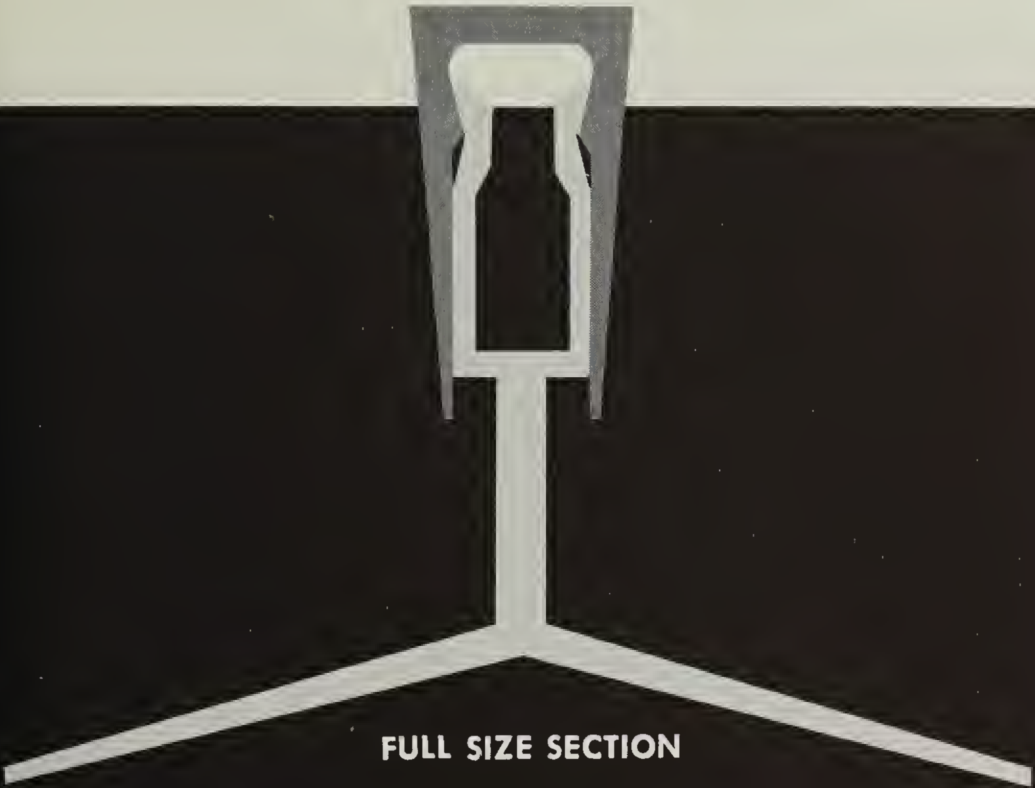


SECTION



STYLE "L" FACET
ACTUAL SIZE

NO SHELVING



GRILL-O-METRICS STYLE "L"

LESS COSTLY THAN CUSTOM BUILT GRILLES.

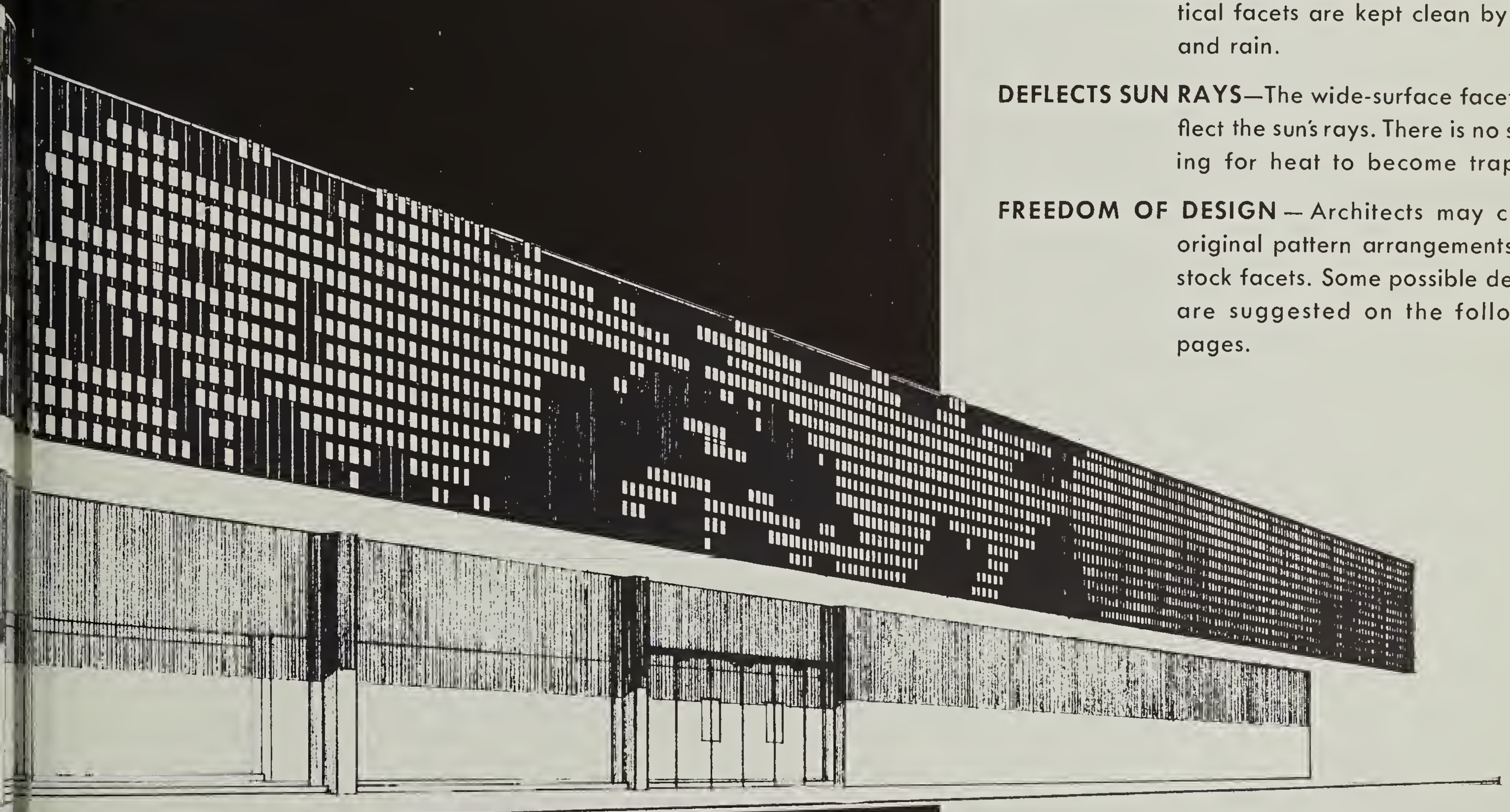
FLOATING FACETS—3-Dimensional geometric patterns create the illusion of floating forms in space.

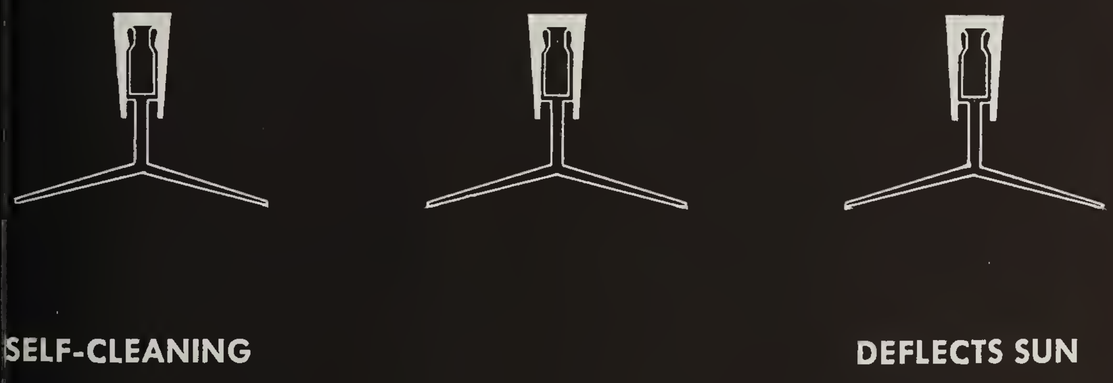
NO SHELVING—Debris cannot accumulate because the wide surfaces of the facets are in a vertical plane.

SELF-CLEANING—The polished surfaces of the vertical facets are kept clean by wind and rain.

DEFLECTS SUN RAYS—The wide-surface facets deflect the sun's rays. There is no shelving for heat to become trapped.

FREEDOM OF DESIGN—Architects may create original pattern arrangements with stock facets. Some possible designs are suggested on the following pages.





SUGGESTED SPECIFICATIONS

The Miscellaneous Metal Contractor shall furnish and install the GRILL·O·METRIC panels style "L" where indicated on the working drawings.

Face of facets furnished with #204·A2 polished clear anodized finish or #145 polished gold anodized finish. Backs of facets and all other parts furnished in a caustic anodized finish. The background supporting bars are to have a caustic black anodized finish.†

When the GRILL·O·METRIC screen is connected to other metals such as steel, a prime coat of zinc chromate shall be applied, then followed by a heavy coat of bituminous paint to prevent contact between dissimilar metals.

All members shall be plumb and accurately located to line and elevation. The installation shall be rigidly mounted and securely installed with approved fasteners to steel bracket supports.

GRILL·O·METRICS are to be furnished in strict accordance with the Manufacturers details as shown in catalogue M·64 of BLUMCRAFT OF PITTSBURGH, 460 Melwood Street, Pittsburgh 13, Pa., and as published in Sweet's Architectural File 6e/Blu. The Miscellaneous Metal Contractor shall be responsible for the workmanship, finish and rigidity of installation . . . and shall forward shop drawings to BLUMCRAFT OF PITTSBURGH for manufacturer's recommendations, prior to submission for architect's approval.

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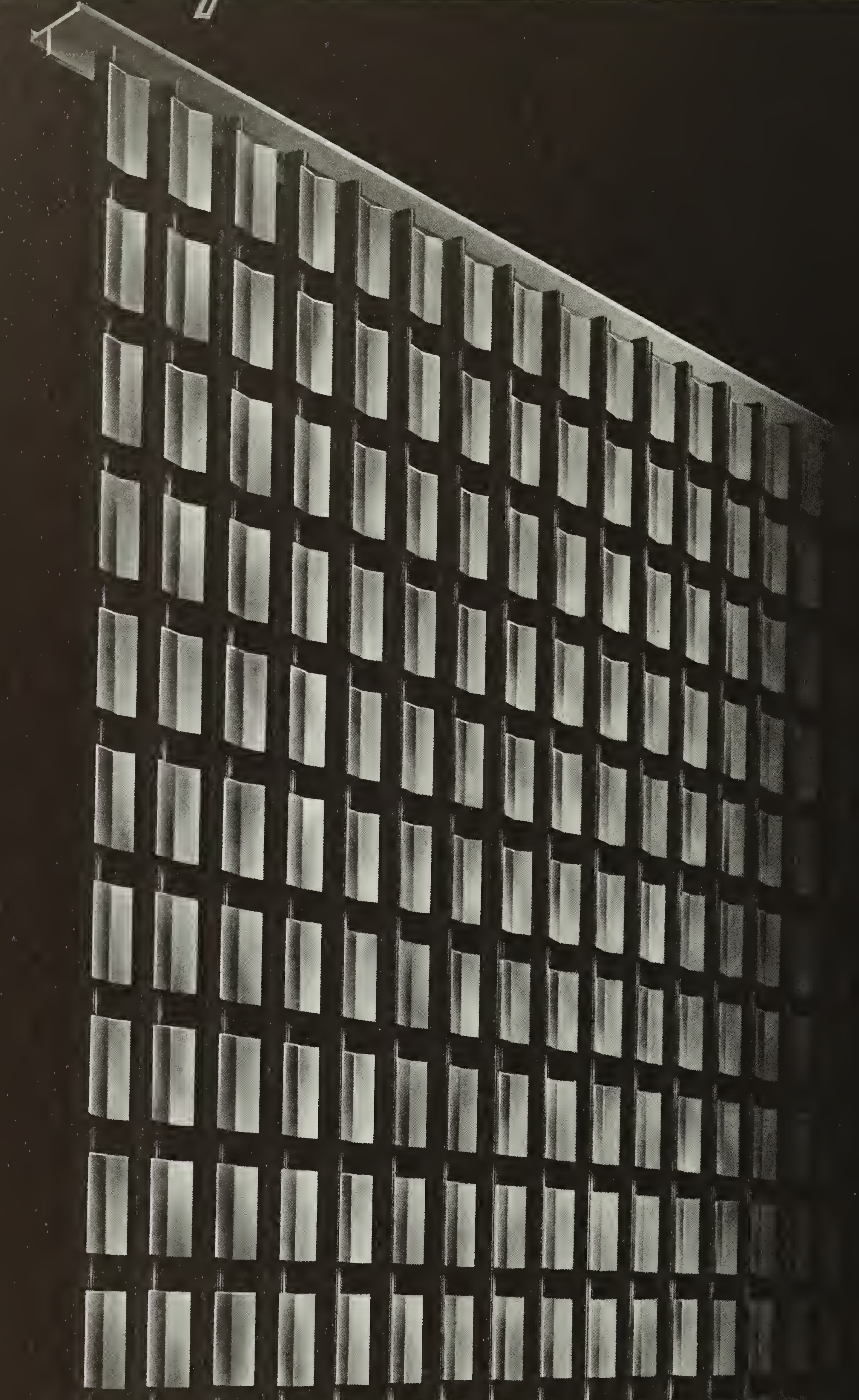
†Clear and color anodizing is applied to Blumcraft materials in accordance with the best techniques prescribed by the Aluminum Industry; however, some color fading may occur upon exposure to the elements.



DELUXE-LINE

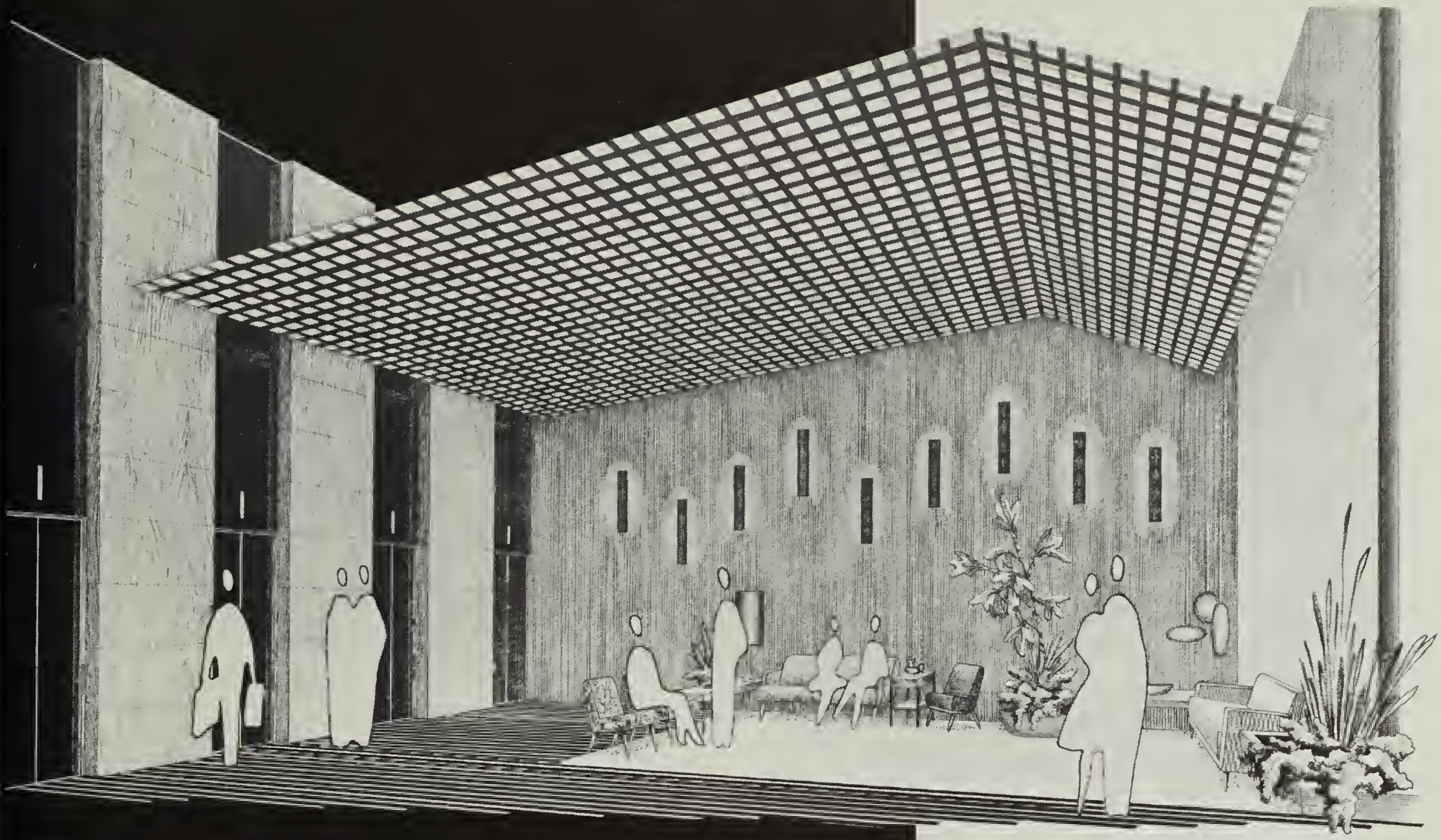


FIG. 654

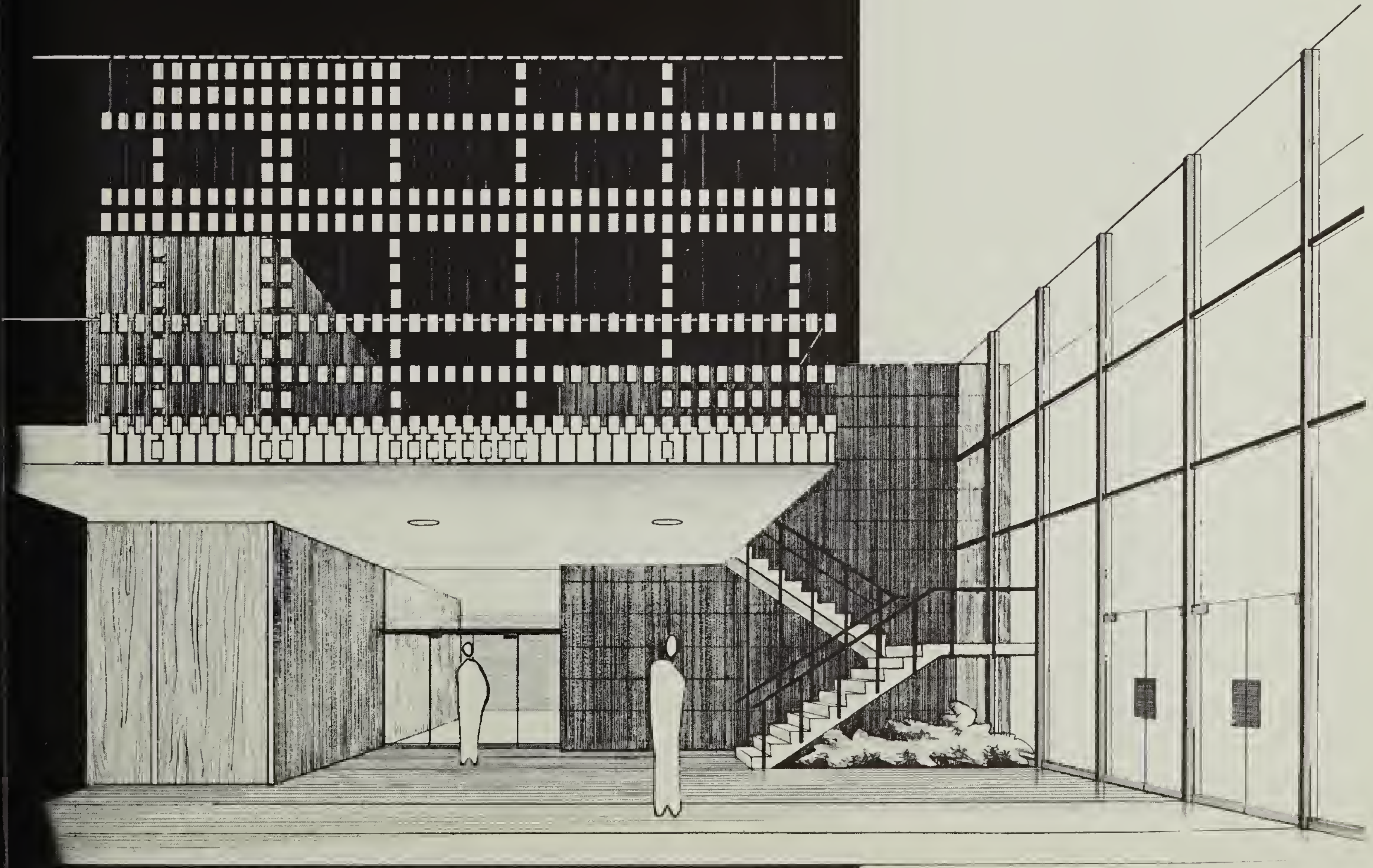
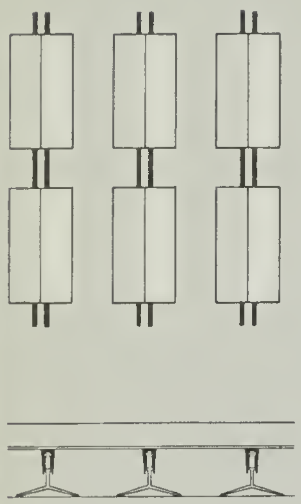
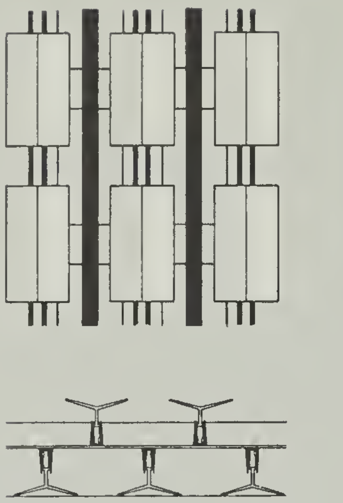


FIG. 626

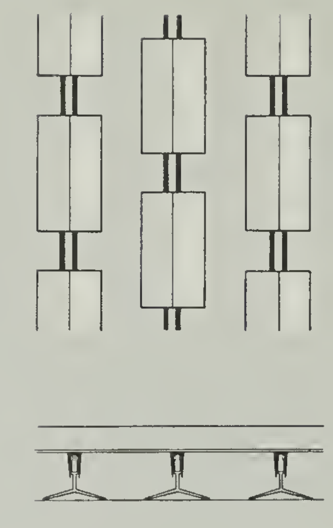
*TRADEMARK



SINGLE FACE

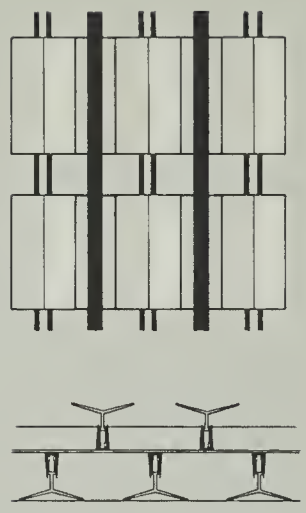


ALTERNATING DOUBLE FACE STAGGERED

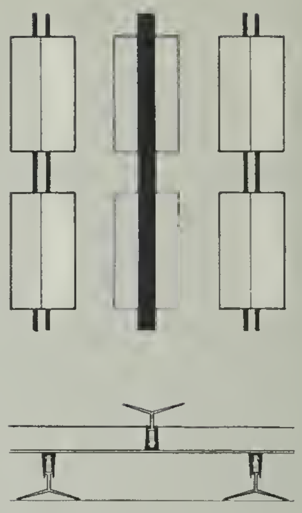


SINGLE FACE STAGGERED

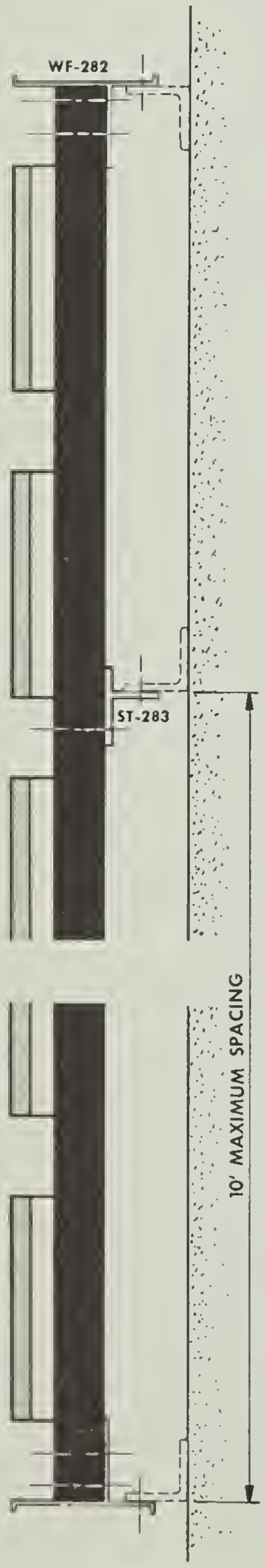
SCALE ¾" = 1'-0"



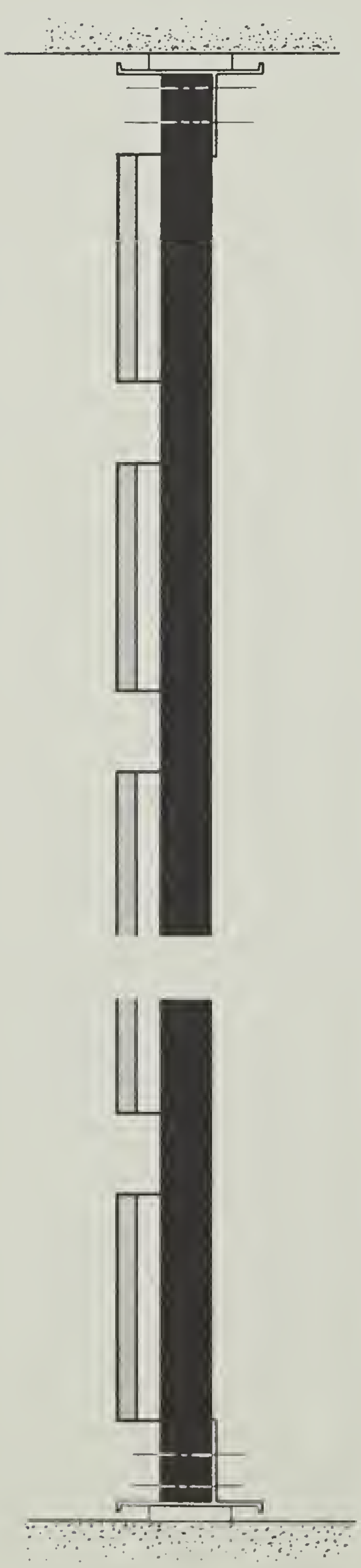
DOUBLE FACE ALTERNATING



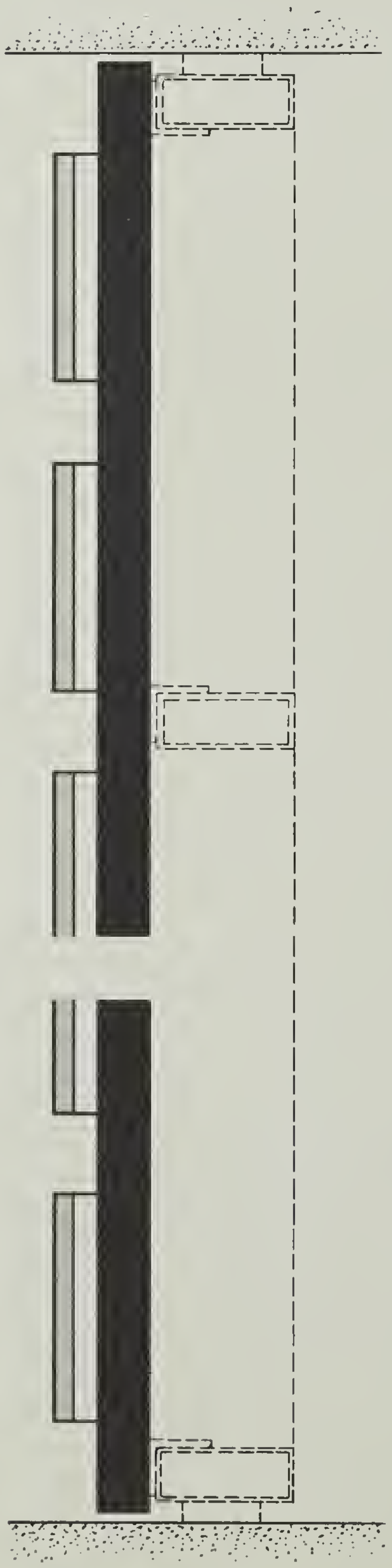
ALTERNATING FACE


WF-282
ST-283
10' MAXIMUM SPACING

MOUNTED TO FACE OF BUILDING

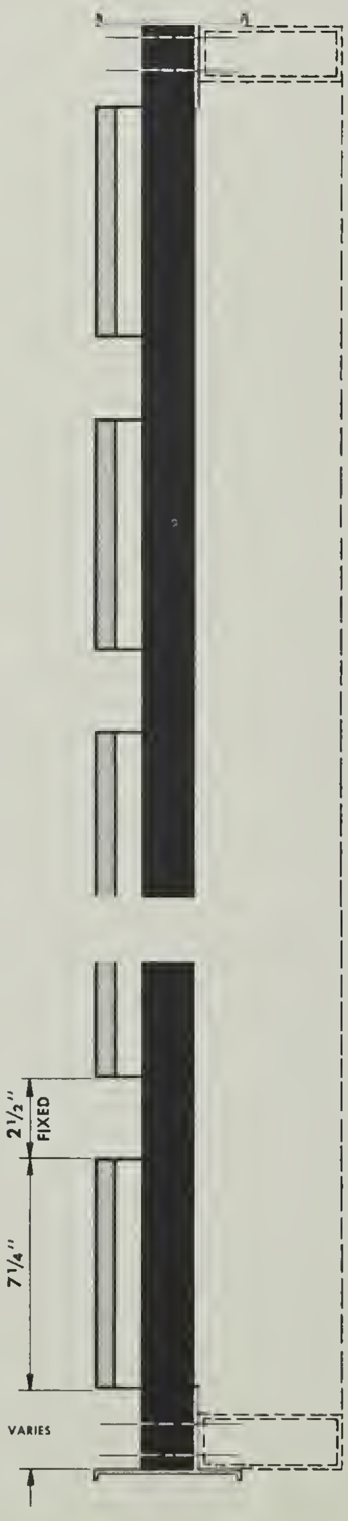


MOUNTED TO FLOOR AND CEILING

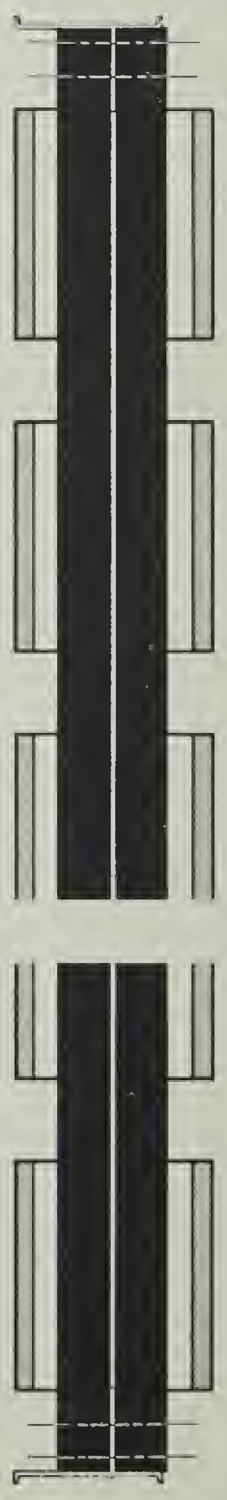


MOUNTED TO CURTAINWALL

SCALE 1½" = 1'-0"


2½" FIXED
7¼"
VARIES

MOUNTED TO FLOATING FRAME

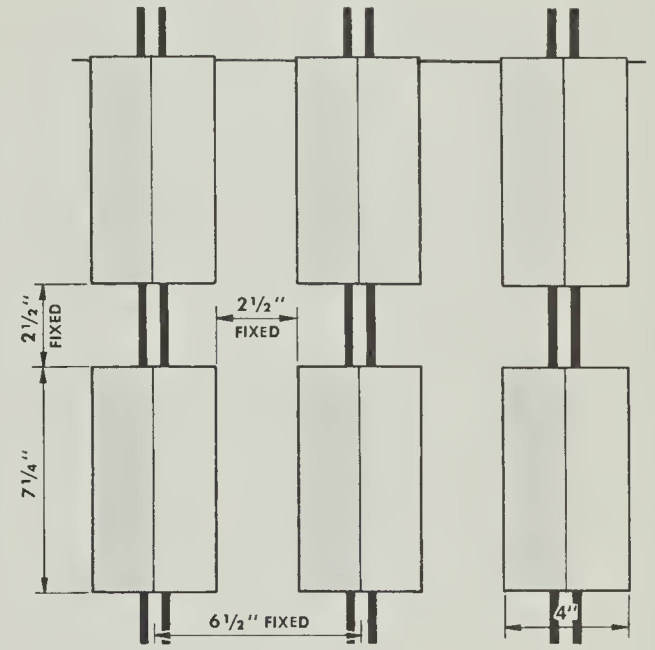


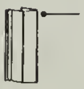
ALTERNATING OR DOUBLE FACE

PART NO.	FINISH
CC-282	CLEAR OR GOLD ANODIZED
CC-282-1	CLEAR OR GOLD ANODIZED
VC-282	CLEAR OR GOLD ANODIZED
F-280-1	*CLEAR OR GOLD ANODIZED
F-280-3	*CLEAR OR GOLD ANODIZED
FS-284	CLEAR OR GOLD ANODIZED

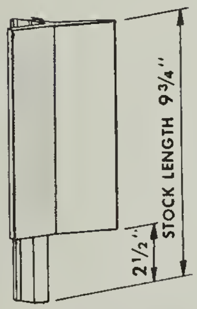
PART NO.	FINISH
ST-283	BLACK ANODIZED
ST-283N	BLACK ANODIZED
VT-281	BLACK ANODIZED
WF-282	CLEAR OR GOLD ANODIZED
WF-282N	CLEAR OR GOLD ANODIZED

*NOTE FACE OF FACETS WITH #204-A2 POLISHED CLEAR ANODIZED FINISH OR #145 POLISHED GOLD ANODIZED FINISH. BACKS OF FACETS AND ALL OTHER PARTS FURNISHED IN A CAUSTIC ANODIZED FINISH. CLEAR AND COLOR ANODIZING IS APPLIED TO BLUMCRAFT MATERIALS IN ACCORDANCE WITH THE BEST TECHNIQUES PRESCRIBED BY THE ALUMINUM INDUSTRY. HOWEVER, SOME COLOR FADING MAY OCCUR UPON EXPOSURE TO THE ELEMENTS.

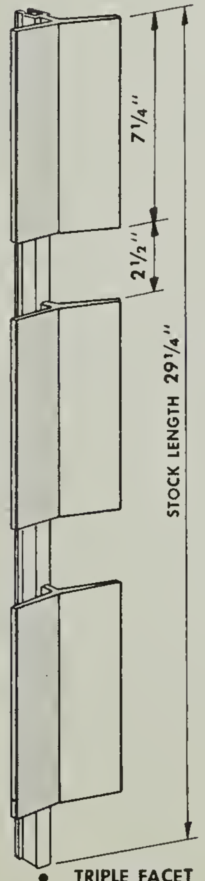

2½" FIXED
2½" FIXED
7¼"
6½" FIXED
4"



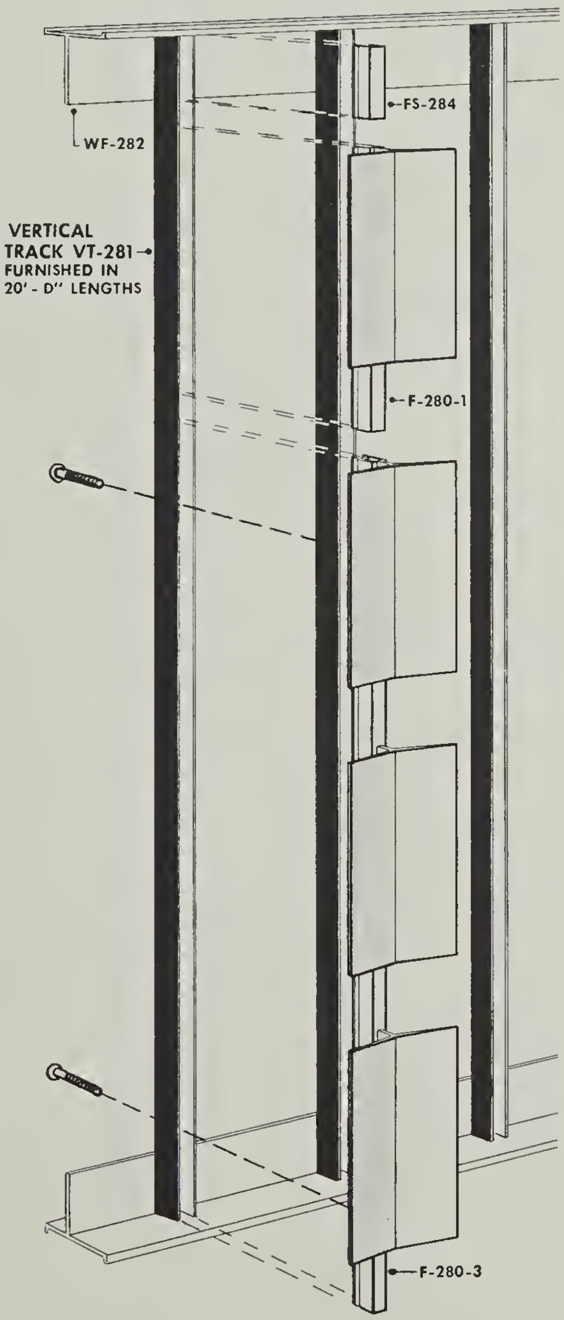
FILLER STRIP FS-284 FURNISHED IN 4'-0" LENGTHS


STOCK LENGTH 9¾"
2½"

SINGLE FACET F-280-1

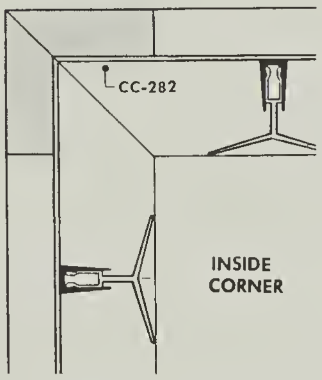

7¼"
2½"
STOCK LENGTH 29¼"

TRIPLE FACET F-280-3

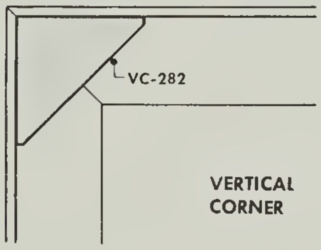

WF-282
FS-284
VERTICAL TRACK VT-281
FURNISHED IN 20'-0" LENGTHS
F-280-1
F-280-3

FIELD ASSEMBLY

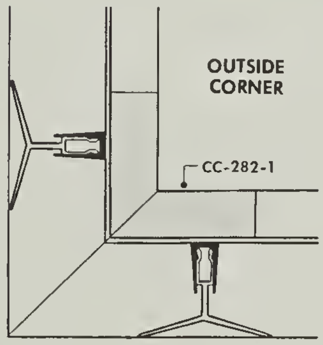
SINGLE STRIPS OF FACETS AVAILABLE FOR APPLICATION TO WALLS AND OTHER SURFACES. FURNISHED IN LENGTHS UP TO 10'-0"



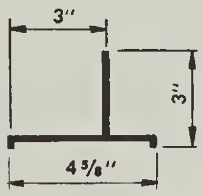
INSIDE CORNER



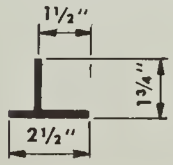
VERTICAL CORNER



OUTSIDE CORNER

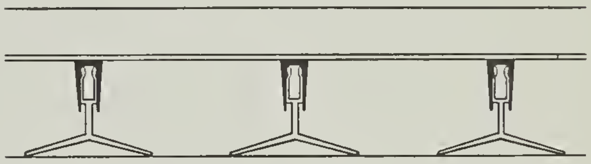


FRAME WF-282 FURNISHED IN 20'-0" LENGTHS

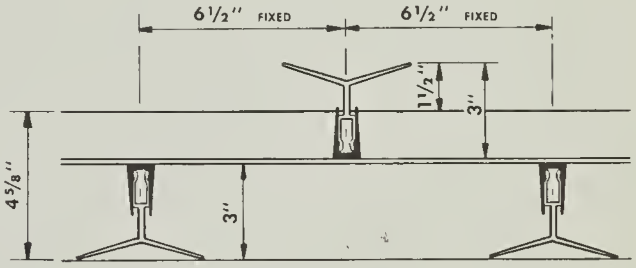


STIFFENER BAR ST-283

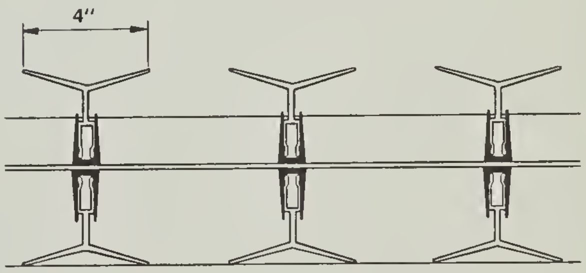
SCALE 1½" = 1'-0"



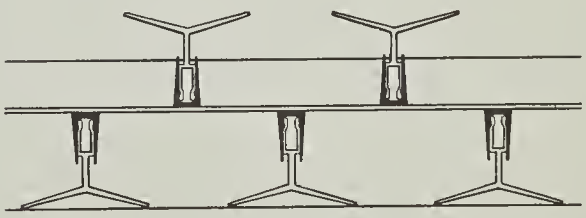
SINGLE FACE


6½" FIXED
6½" FIXED
1½"
3"
4⅝"
3"

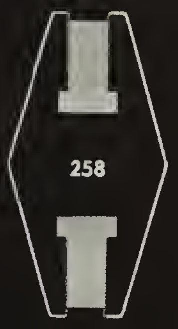
ALTERNATING FACETS



DOUBLE FACE



DOUBLE FACE ALTERNATING

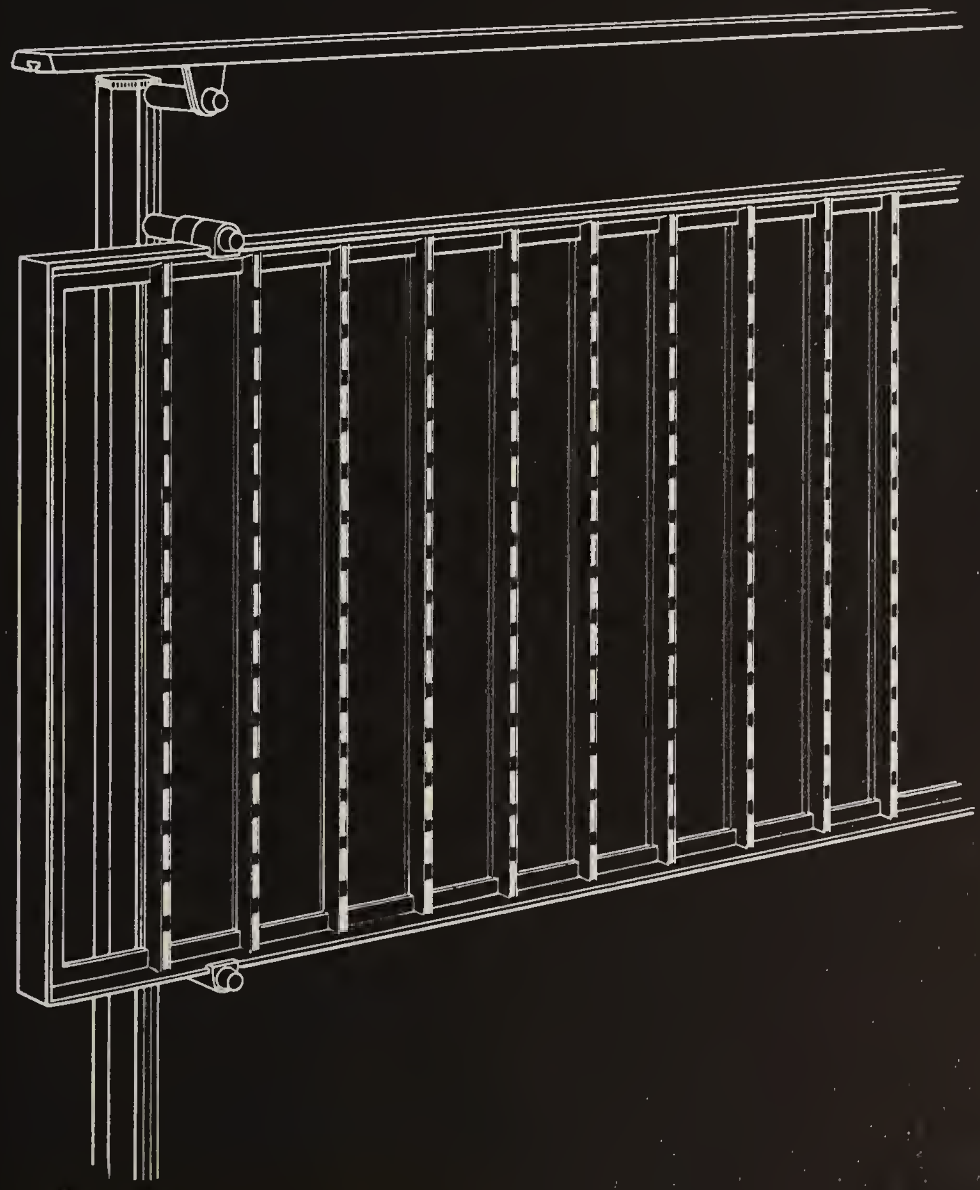


FULL SIZE SECTION

SPARKLING RECESSED FACETS.

CLEAR OR GOLD LUSTER FACETS CONTRAST WITH DULL-BLACK SUPPORTING BARS.

BAR-O-METRIC GRILLE PANELS FURNISHED COMPLETELY ASSEMBLED, FRAMED AND ANODIZED BY BLUMCRAFT.



ASSEMBLY OF BAR-O-METRIC FLOATING PANEL

SUGGESTED SPECIFICATIONS

The Miscellaneous Metal Contractor shall furnish and install the BAR-O-METRIC panels where indicated on the working drawings.

The grille facets shall have a 204-A2 clear polished anodize finish, (or 145 polished gold anodize finish).

The vertical bars are to have a dull black anodize finish.

Where panels exceed 36" in height, $\frac{5}{16}$" diameter horizontal or vertical tie rods are to be inserted through bar members, as required.

BAR-O-METRICS are to be furnished in strict accordance with the Manufacturers details as shown in catalogue M-64 of BLUMCRAFT OF PITTSBURGH, 460 Melwood Street, Pittsburgh 13, Pa., and as published in Sweet's Architectural File 6e/Blu. The Miscellaneous Metal Contractor shall be responsible for the workmanship, finish and rigidity of installation.........and shall forward shop drawings to BLUMCRAFT OF PITTSBURGH for manufacturer's recommendations, prior to submission for architect's approval.

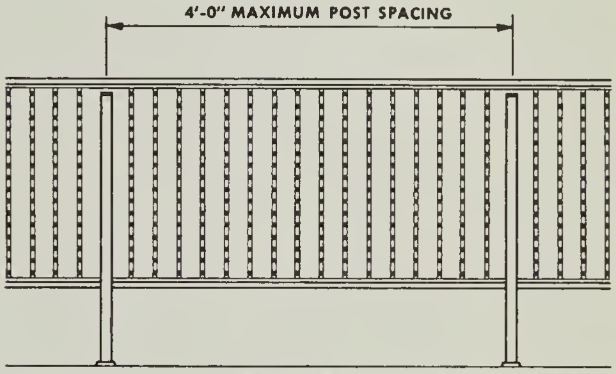


FIG. 627 BAR-O-METRIC PANELS RECESSED IN RAILS

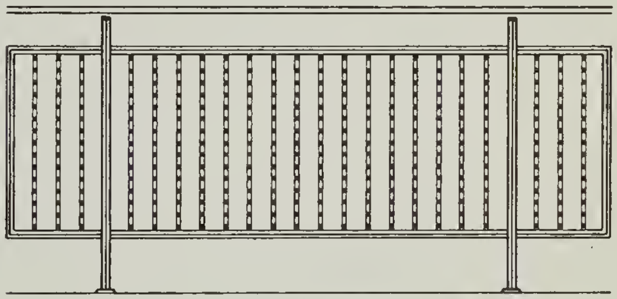


FIG. 628 BAR-O-METRIC FLOATING PANELS

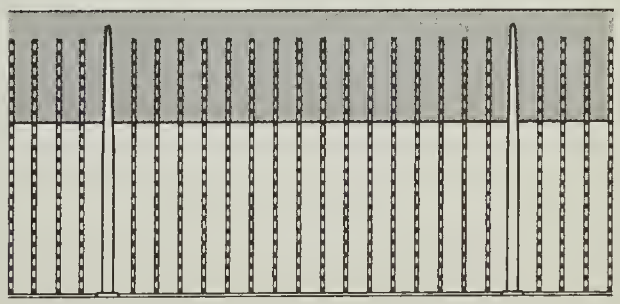


FIG. 629
BAR-O-METRIC PANELS MOUNTED TO WOOD RAIL AND FLOOR

DETAILS ON PAGE 115

SCALE $\frac{3}{8}$"=1'-0"

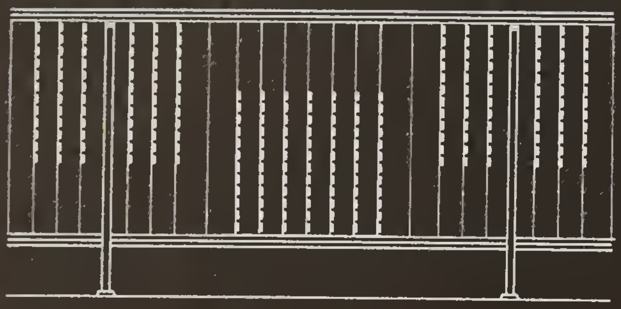


FIG. 630 RECESSED IN RAILS.

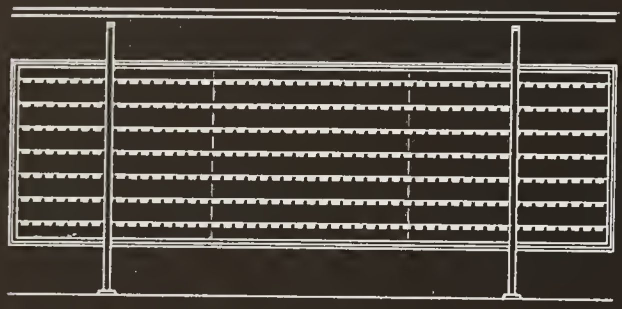


FIG. 631 FLOATING PANEL HORIZONTAL BARS.

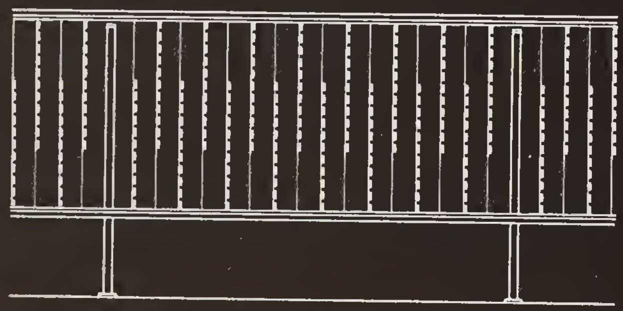


FIG. 632 RECESSED PANEL ALTERNATE DESIGN.

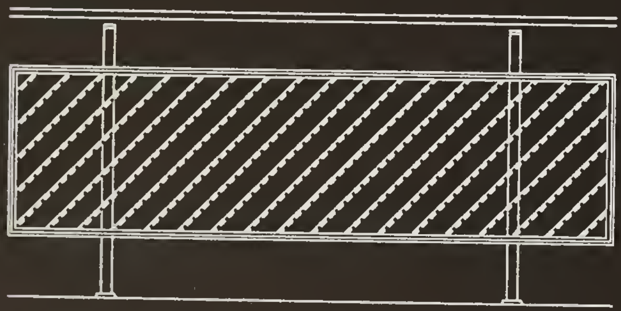


FIG. 633 FLOATING PANEL DIAGONAL BARS.

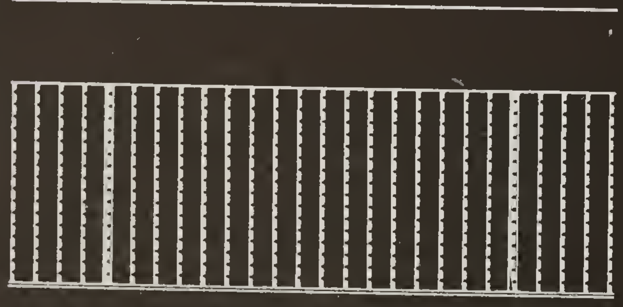


FIG. 634 FLOATING PANEL COMBINED WITH WOOD RAIL.

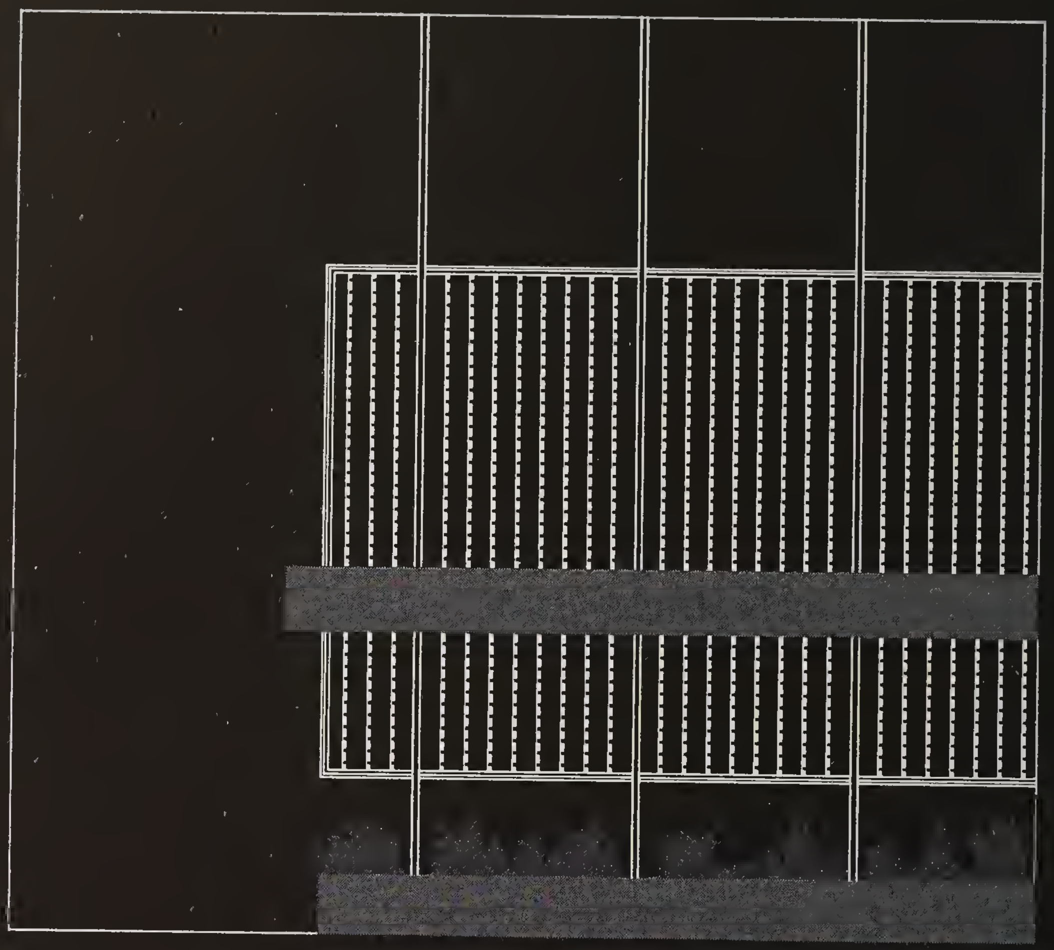


FIG. 635 ROOM DIVIDER.

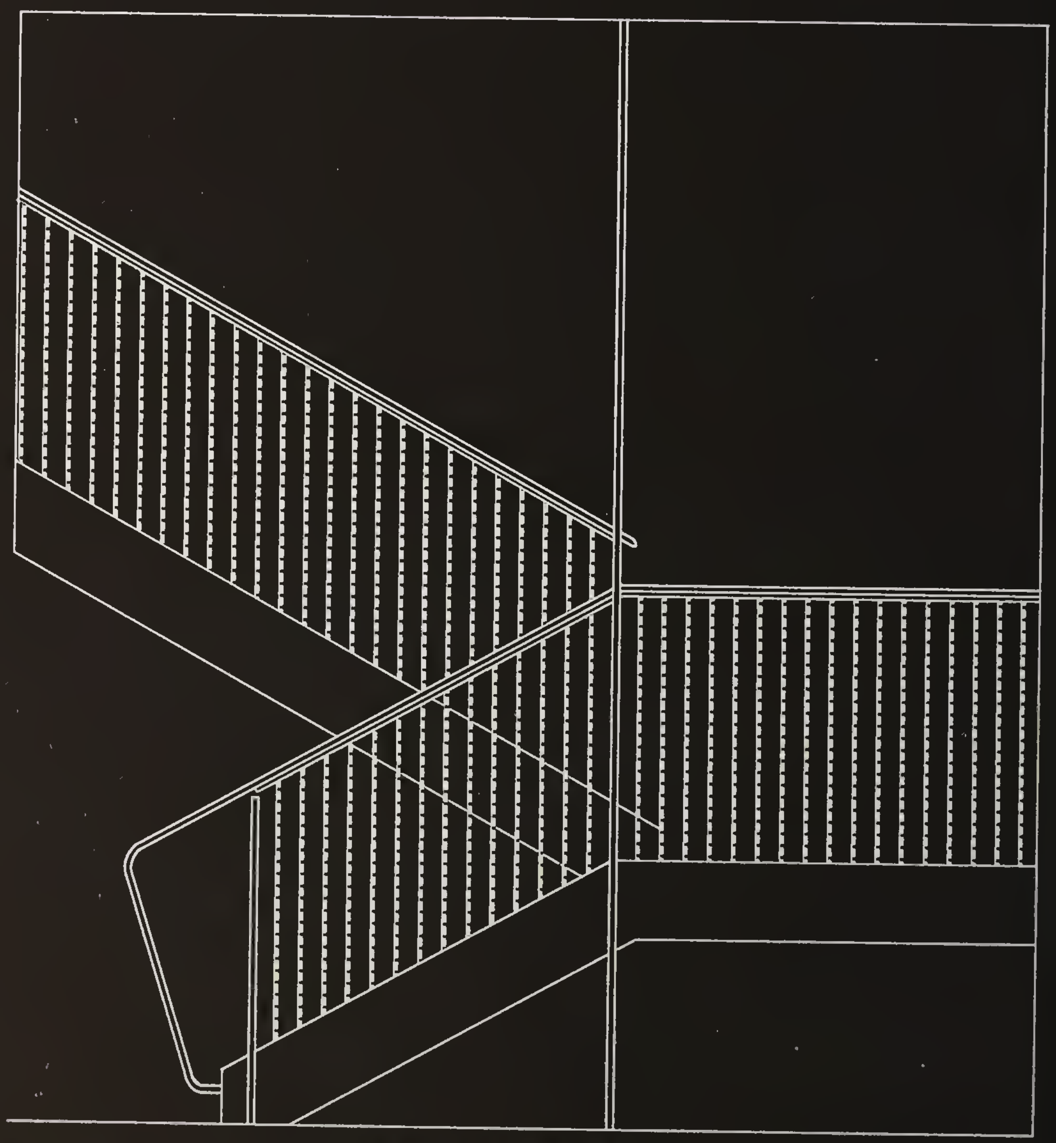
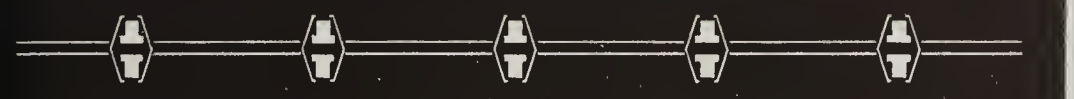
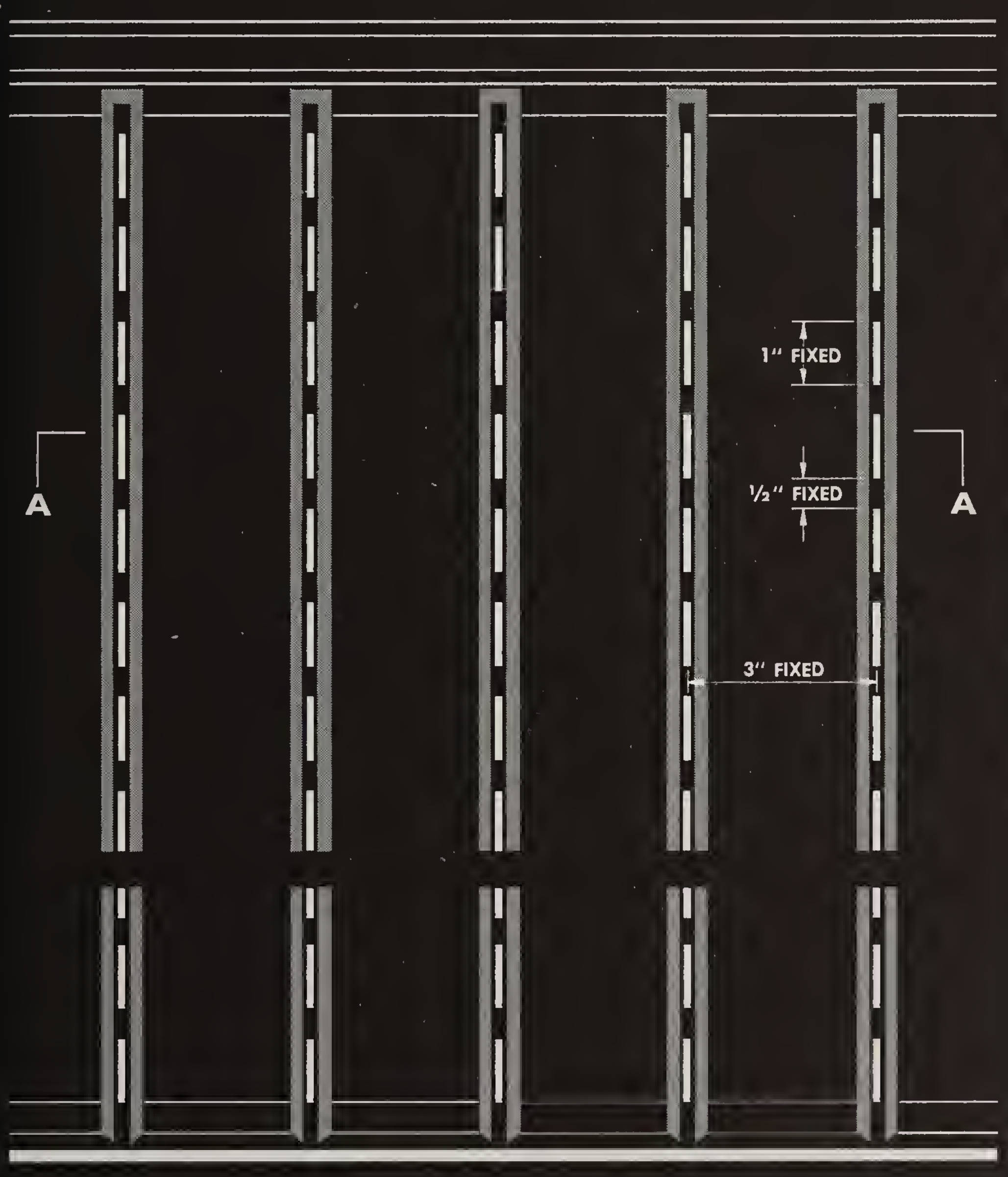


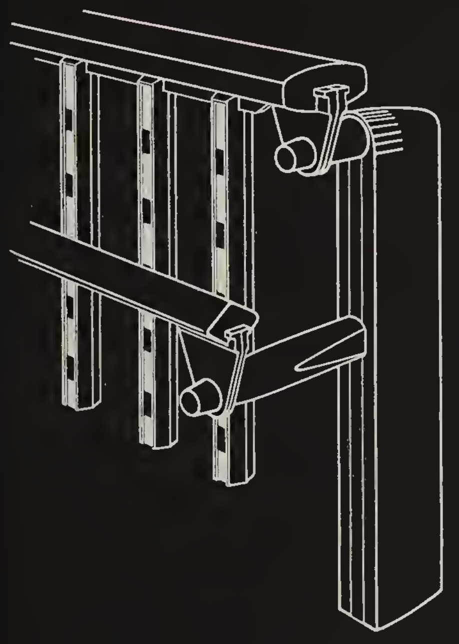
FIG. 636 STAIR APPLICATION STRINGER MOUNTED.



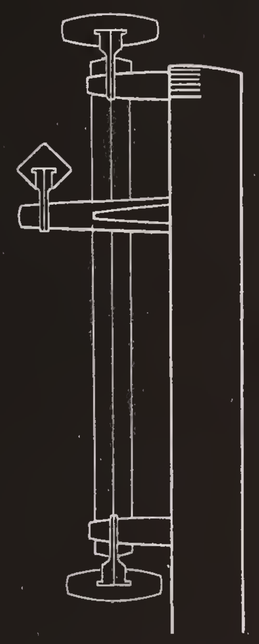
SECTION A-A


1" FIXED
½" FIXED
3" FIXED
A
A

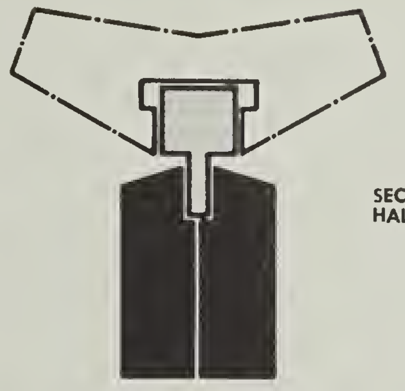
SCALE 3"=1'-0"



RECESSED PANEL ASSEMBLY

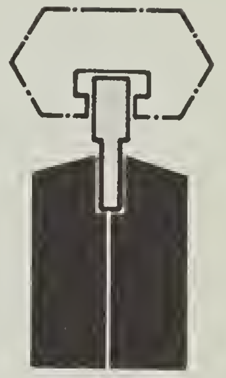


SCALE 1½" = 1'-0"

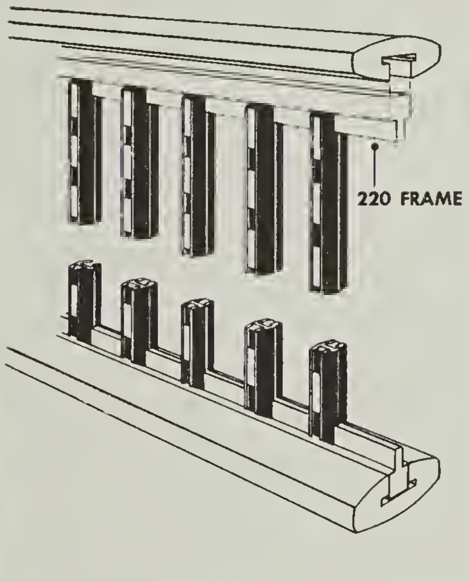


220 FRAME
FOR WIDE SLOTTED HANDRAILS

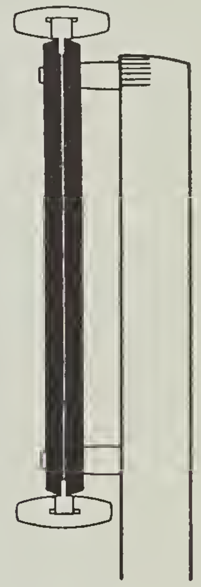
SECTIONS
HALF-SIZE



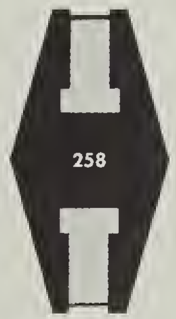
221 FRAME
FOR NARROW SLOTTED HANDRAILS



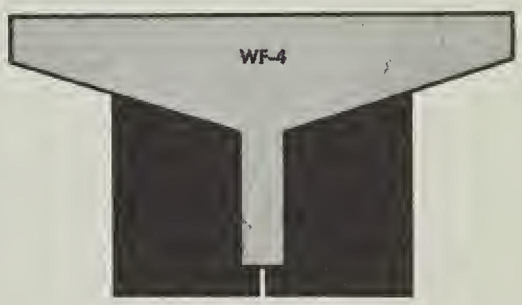
RECESSED PANEL ASSEMBLY



SCALE 1½" = 1'-0"

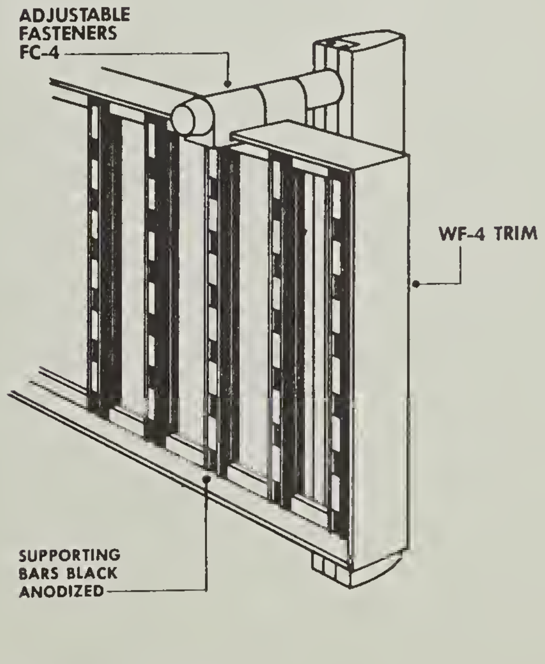


SUPPORTING BAR DOUBLE FACE

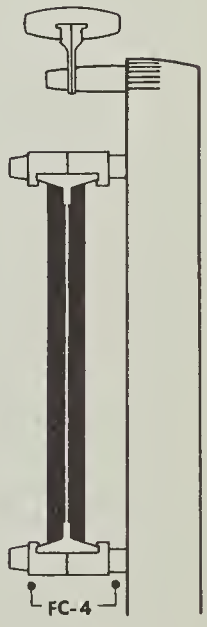


WF-4 TRIM FOR FLOATING PANELS

FULL SIZE SECTIONS

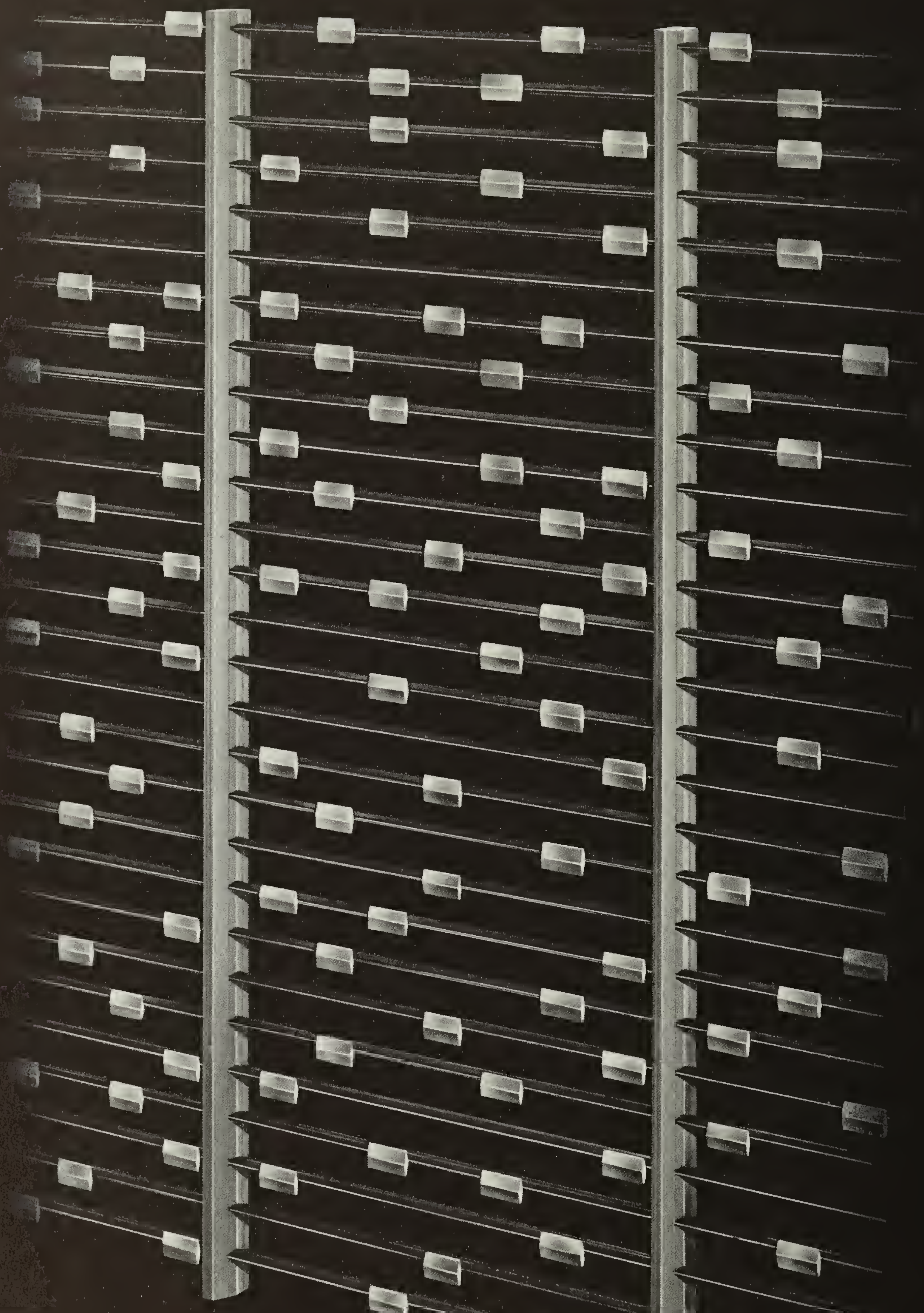

ADJUSTABLE
FASTENERS
FC-4
WF-4 TRIM
SUPPORTING
BARS BLACK
ANODIZED

FLOATING PANEL ASSEMBLY

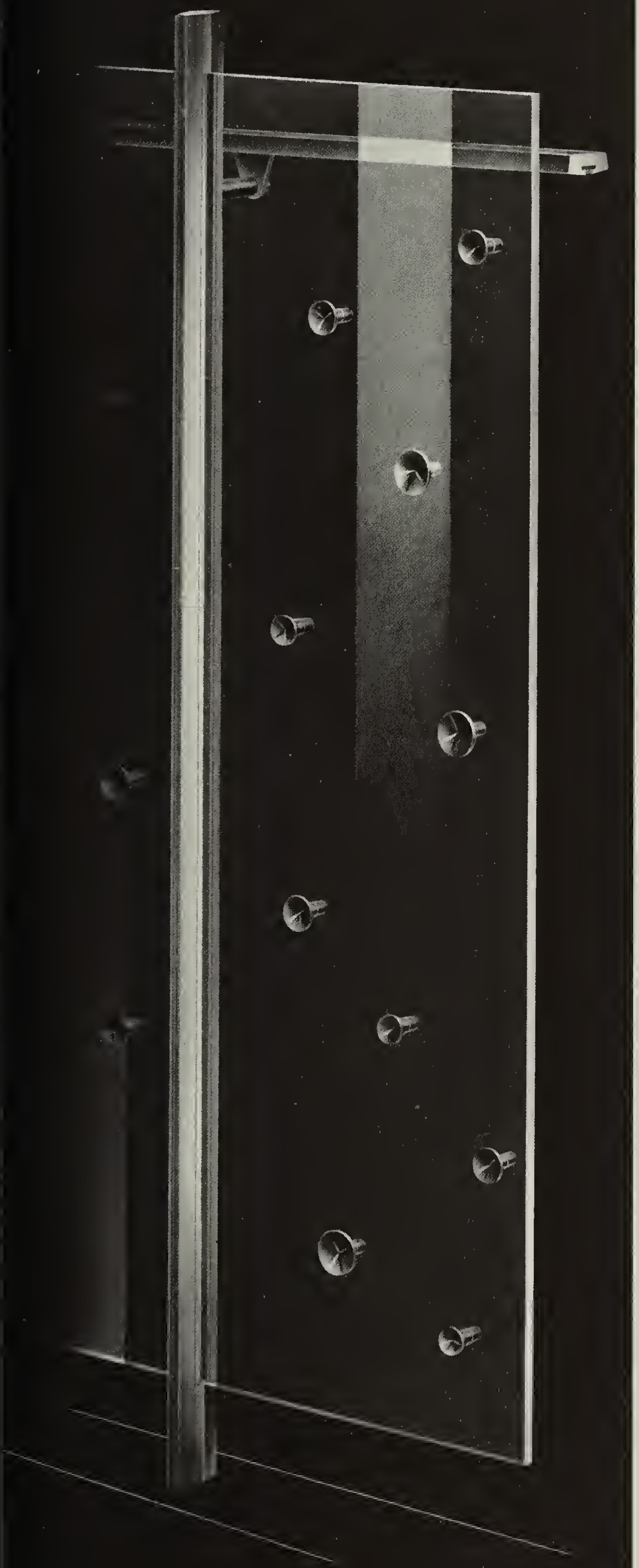


SIDE ELEVATION

SCALE 1½" = 1'-0"



POST PGP-8 WITH GRILL-O-METRICS



POST PGP-8 WITH GLASS FEATURING FLOATING FACETS

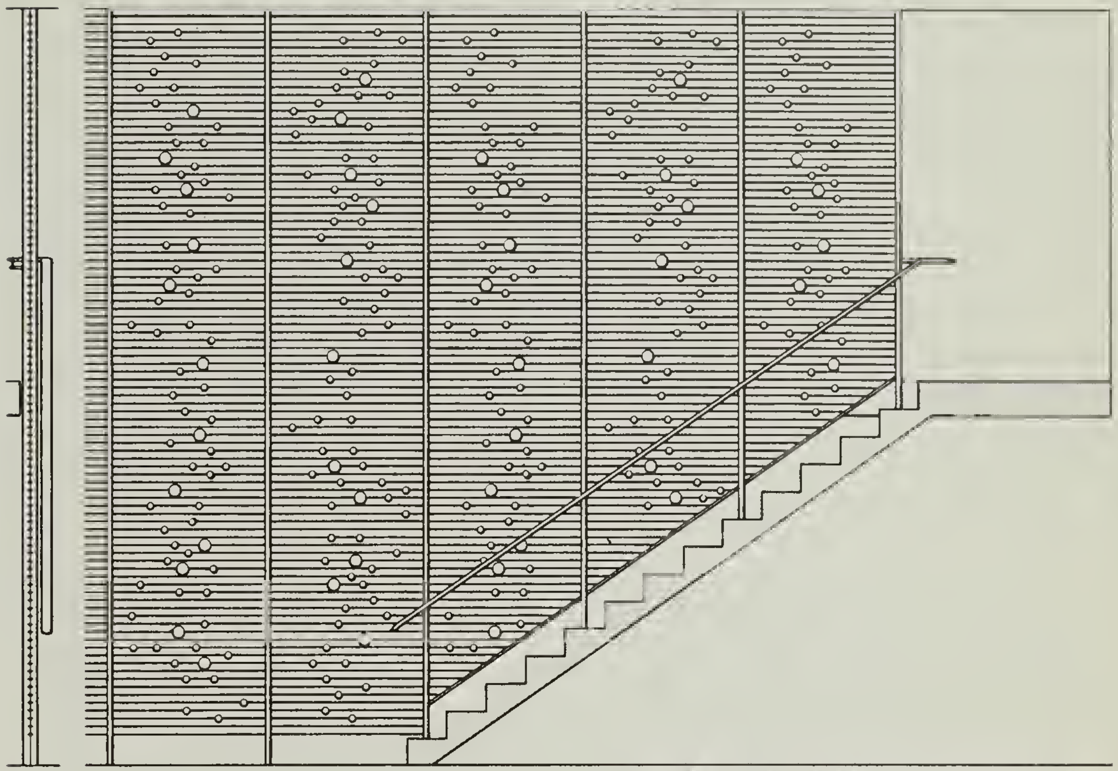


FIG. 815 POST PGP-8 WITH GRILL-O-METRIC PANELS

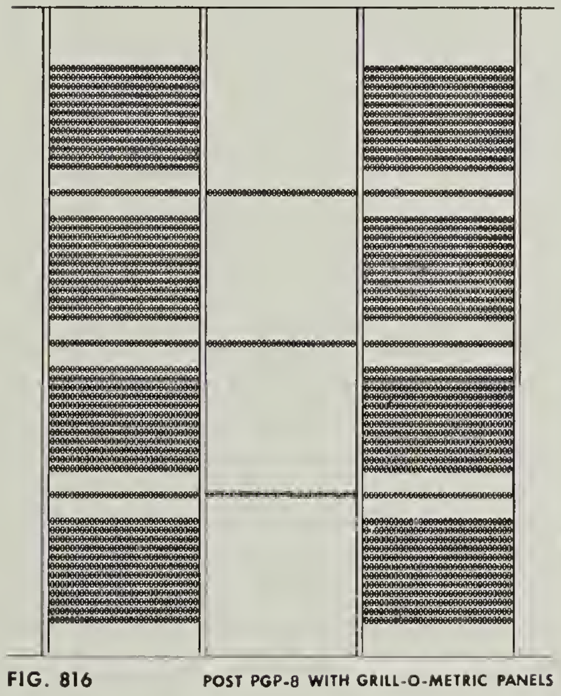


FIG. 816 POST PGP-8 WITH GRILL-O-METRIC PANELS

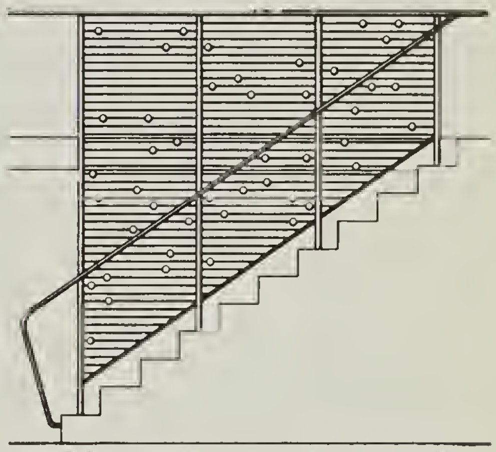


FIG. 818 POST PGP-8 WITH GRILL-O-METRIC PANELS

DETAILS

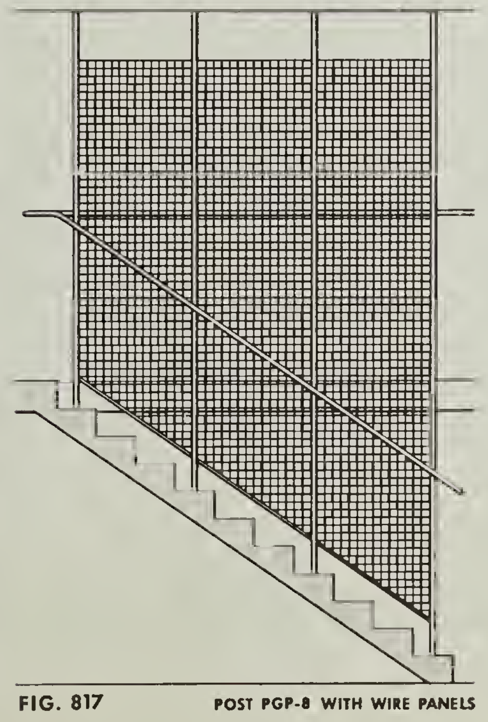


FIG. 817 POST PGP-8 WITH WIRE PANELS

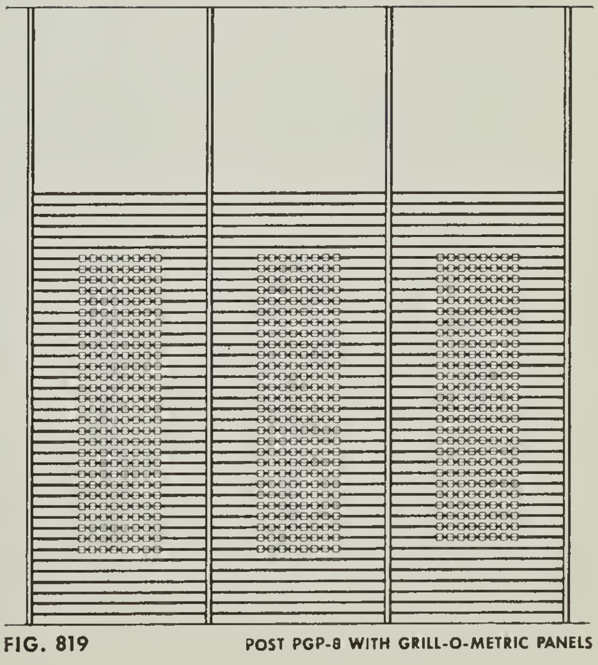
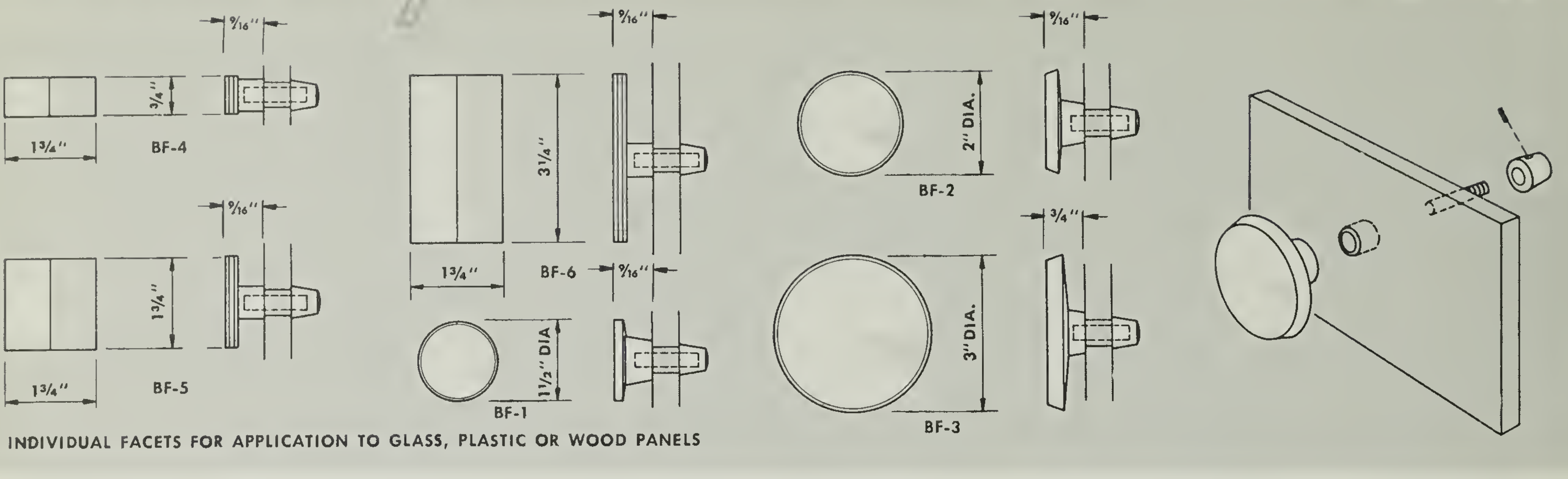
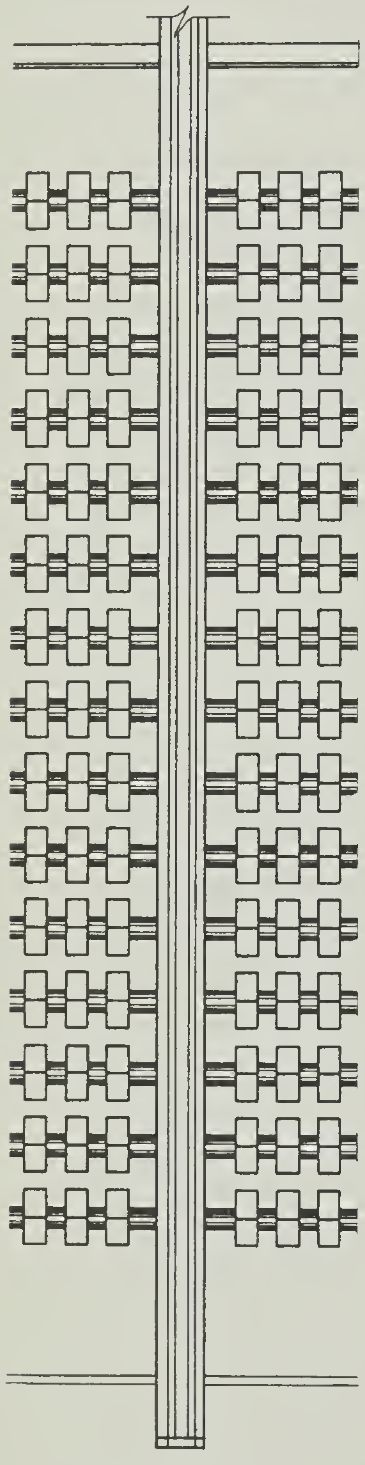


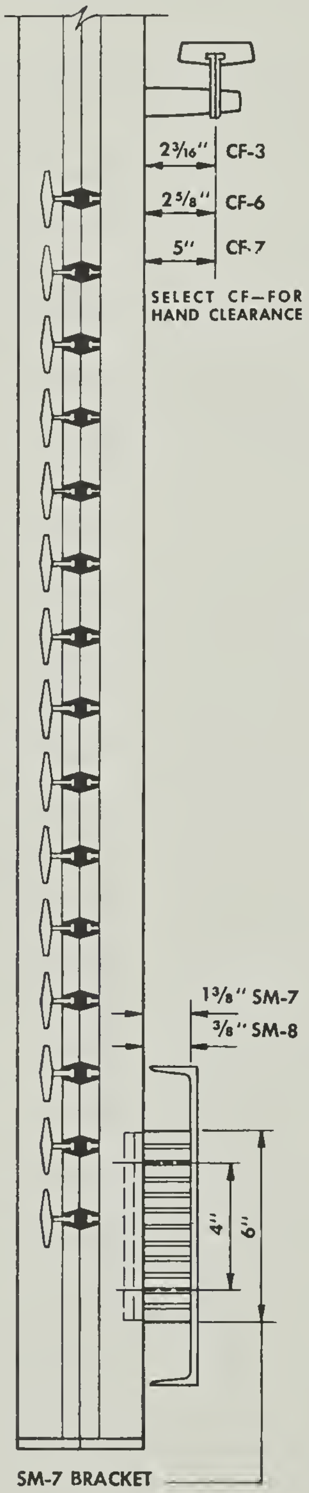
FIG. 819 POST PGP-8 WITH GRILL-O-METRIC PANELS


9/16"
3/4"
1 3/4"
BF-4
9/16"
1 3/4"
1 3/4"
BF-5
9/16"
3 1/4"
1 3/4"
BF-6
9/16"
1 1/2" DIA
BF-1
2" DIA.
BF-2
9/16"
3/4"
3" DIA.
BF-3

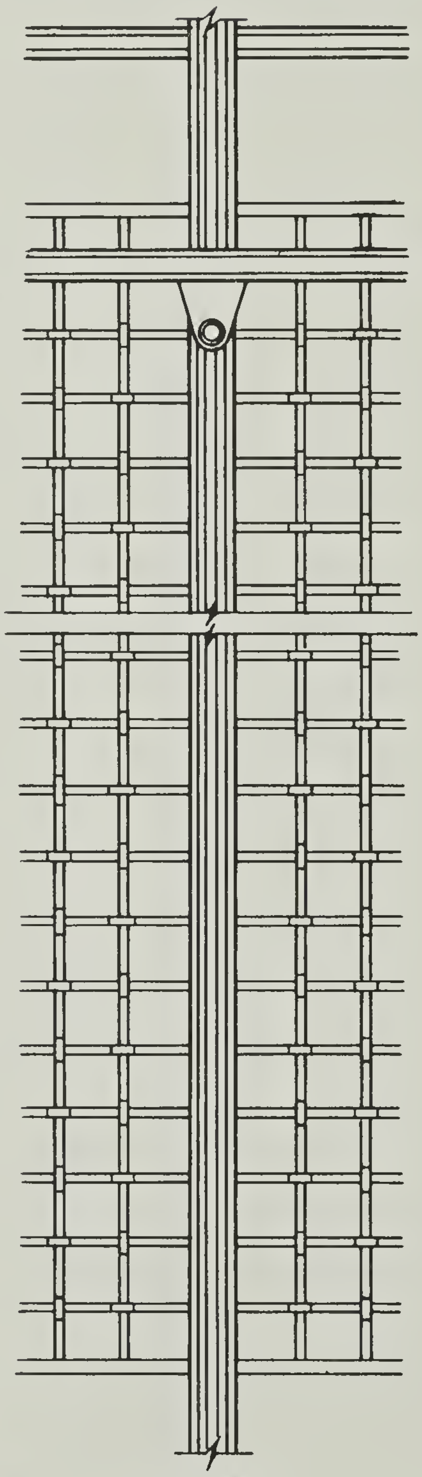
INDIVIDUAL FACETS FOR APPLICATION TO GLASS, PLASTIC OR WOOD PANELS



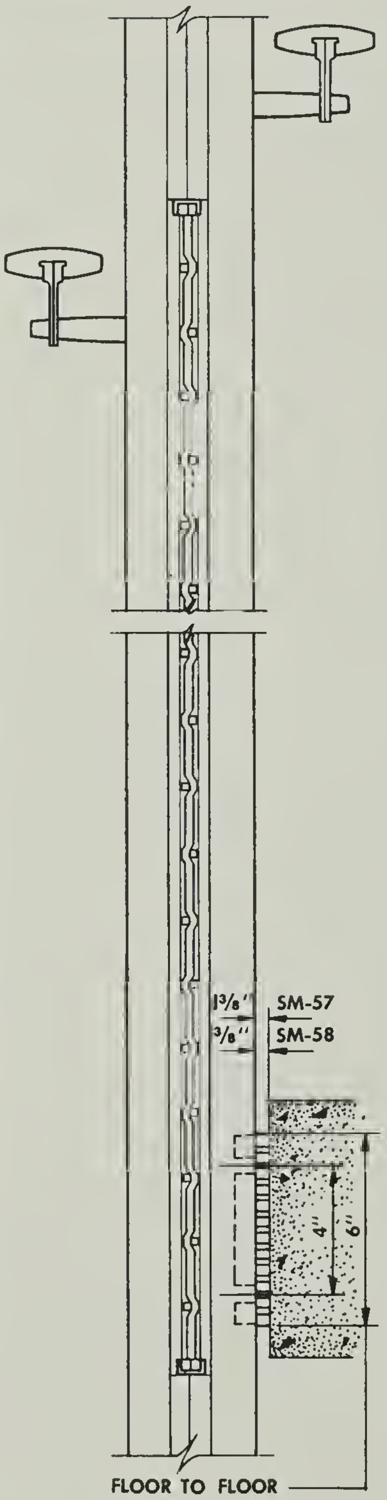
SIDE ELEVATION


2 3/16" CF-3
2 5/8" CF-6
5" CF-7
SELECT CF—FOR HAND CLEARANCE
1 3/8" SM-7
3/8" SM-8
4"
6"

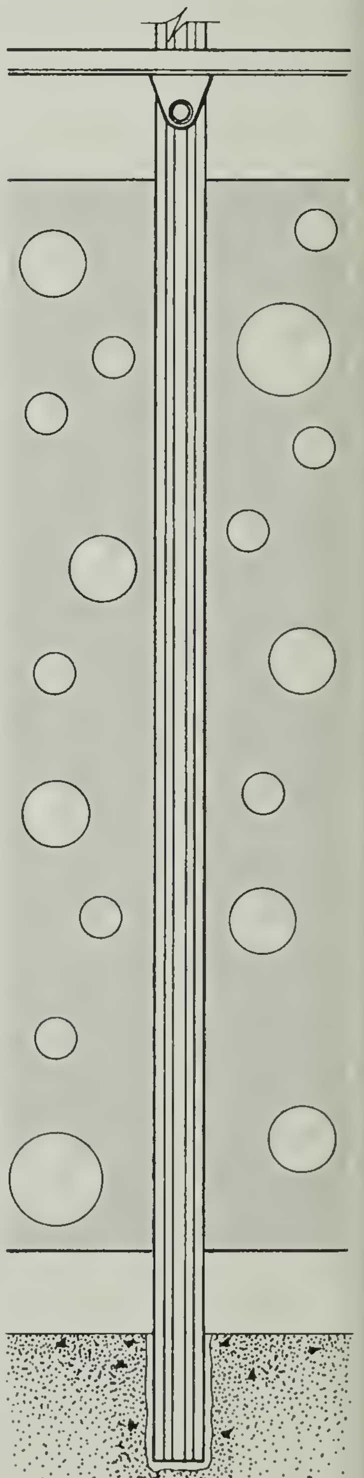
SM-7 BRACKET



SIDE ELEVATION

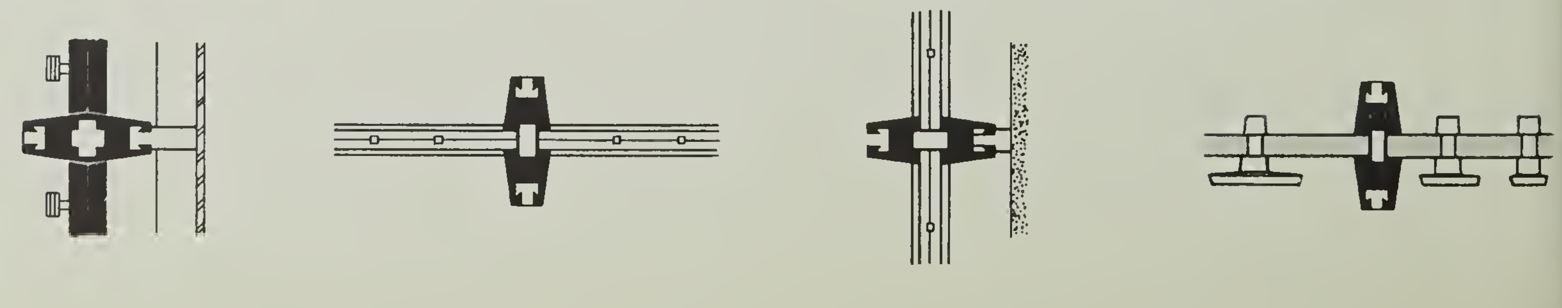

1 3/8" SM-57
3/8" SM-58
4"
6"

FLOOR TO FLOOR



GROUTED POST

ALTERNATE MOUNTINGS
SCALE 1 1/2" = 1'-0"



POST SPACING—NOT TO EXCEED 4'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 4'-0" FOR LEVEL RAILING EXCEPT WHEN USING NO. 114 HANDRAIL MAXIMUM POST SPACING 2'-0". REFER TO PAGE 150

STARTING POSTS—INCLUDING THOSE WITH SIDE MOUNTED BRACKETS, SHOULD EXTEND INTO FLOOR FOR ADDED RIGIDITY

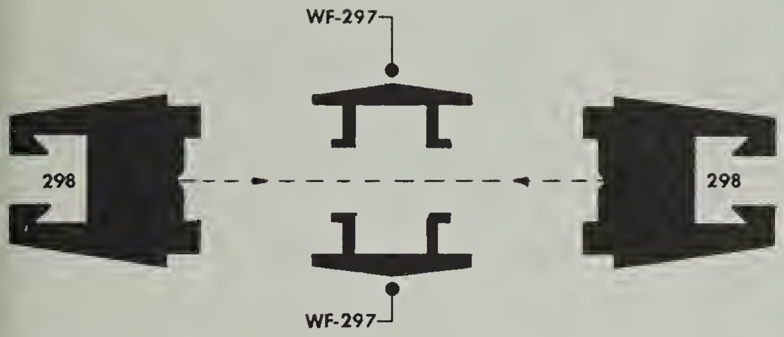
BOXED METAL STRINGERS—SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

CONCRETE STAIRS—USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE . . . ELIMINATES EXPANSION SHIELDS.

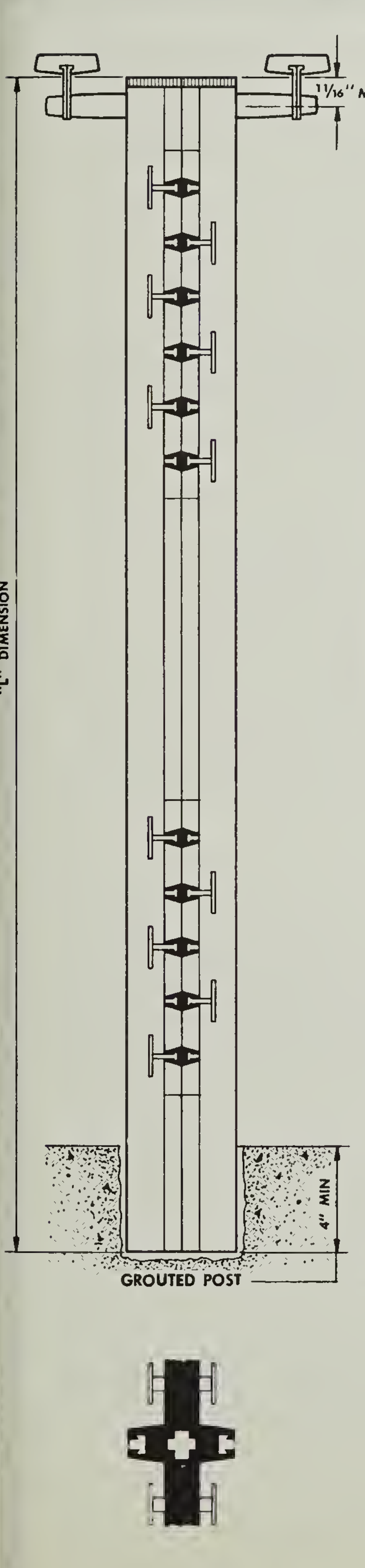
RIGIDITY—THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

FABRICATION—LOCAL FABRICATOR BENDS AND APPLIES FINISH TO HANDRAIL . . . BLUMCRAFT FURNISHES POST ASSEMBLY WITH FITTINGS COMPLETE IN A SATIN FINISH . . LOCAL FABRICATOR IS RESPONSIBLE FOR ASSEMBLY, INSTALLATION, RIGIDITY AND FINAL FINISHED APPEARANCE.

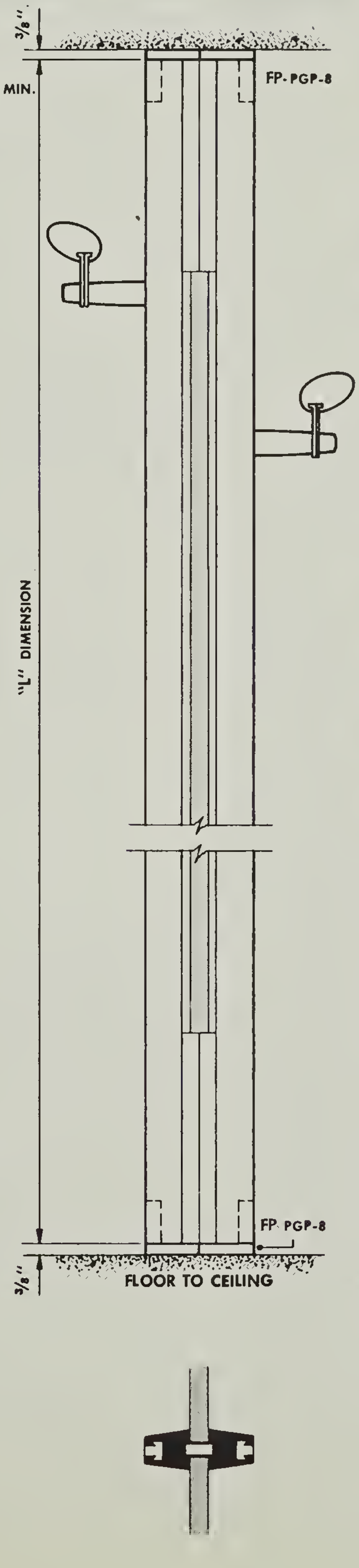
SERVICE TO ARCHITECT—OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT


WF-297
298
298
WF-297

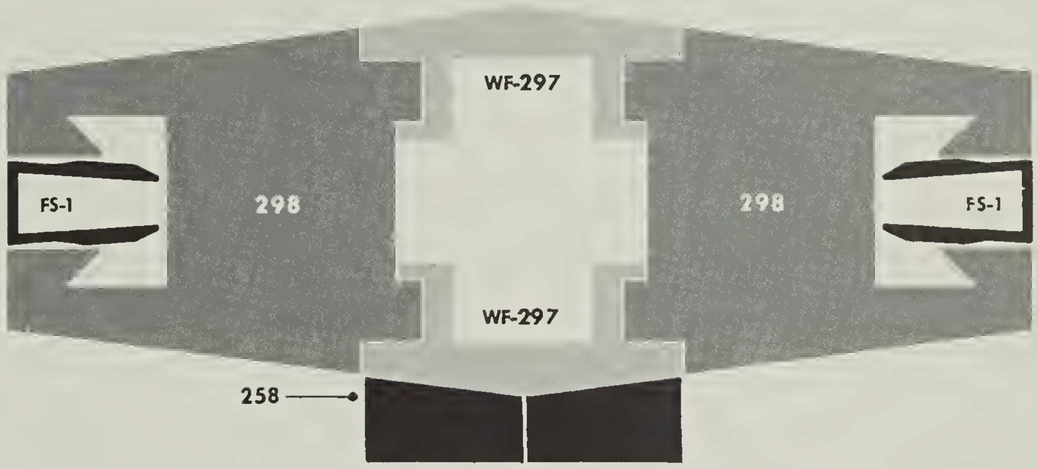
POST ASSEMBLY HALF SIZE


1 1/16" MIN.
"L" DIMENSION
4" MIN

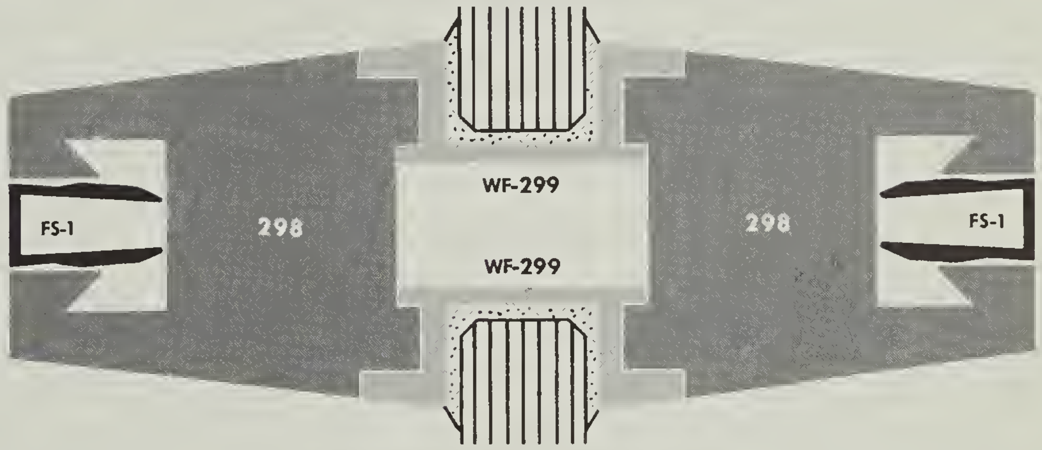
GROUTED POST

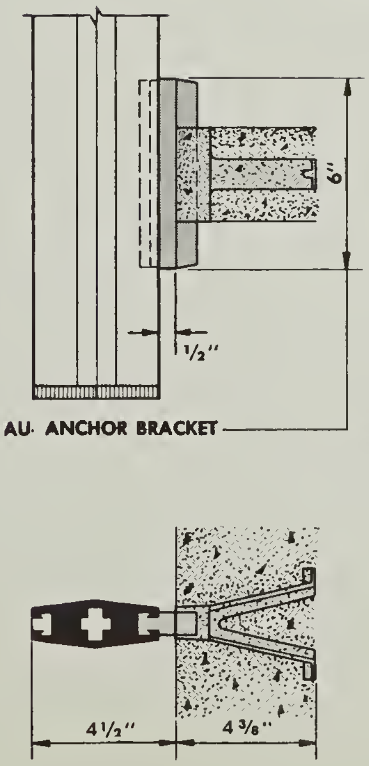

3/8"
FP-PGP-8
"L" DIMENSION
FP PGP-8
3/8"

FLOOR TO CEILING

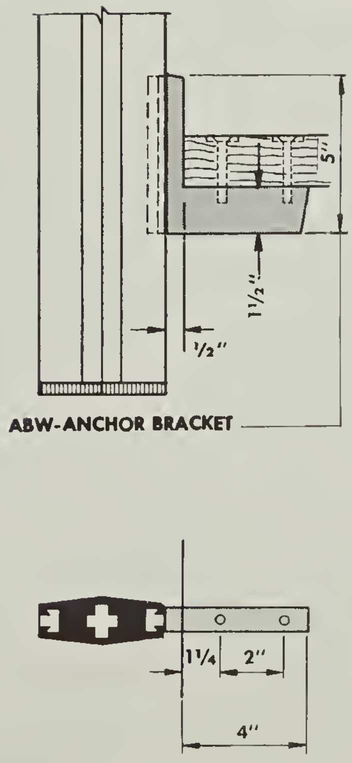

WF-297
FS-1
298
298
FS-1
WF-297
258

POST PGP-8 FOR MOUNTING GRILLES AND PANELS SECTIONS FULL SIZE

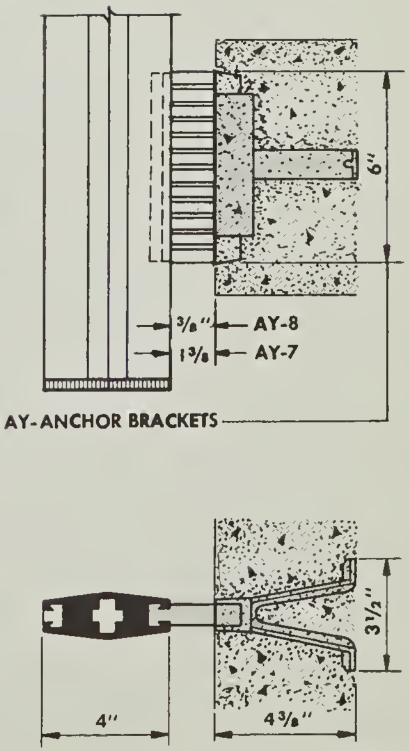

WF-299
FS-1
298
298
FS-1
WF-299



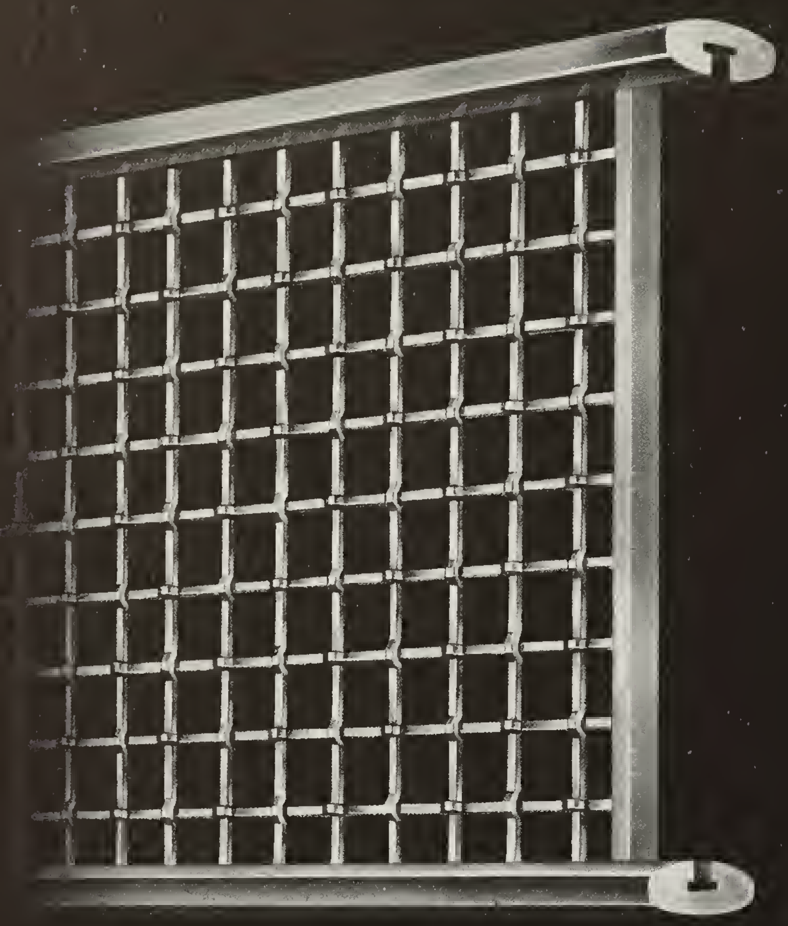
AU- ANCHOR BRACKET

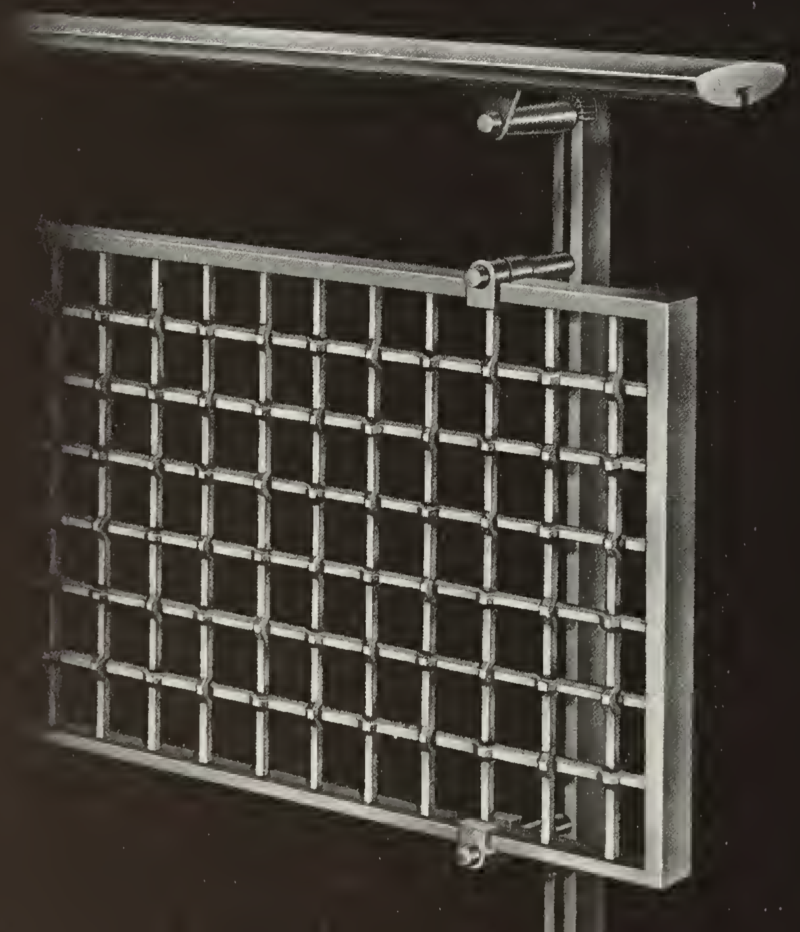

5"
1 1/2"
1/2"
1 1/4
2"
4"

ABW-ANCHOR BRACKET


6"
3/8" AY-8
1 3/8 AY-7
3 1/2"
4"
4 3/8"

AY-ANCHOR BRACKETS





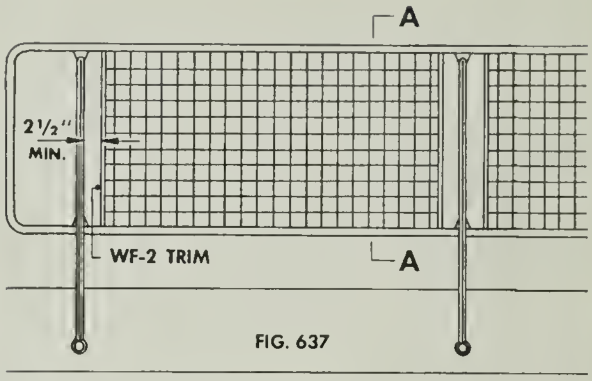


FIG. 637

PANELS RECESSED IN RAILS

PANELS BUILT TO FABRICATOR'S DIMENSIONS BY BLUMCRAFT, IN A BRUSH SATIN FINISH. (NOT ANODIZED).

WHEN PANELS ARE PLACED BETWEEN RAILS WF-2 TRIM IS FURNISHED FOR VERTICAL ENDS. FABRICATOR TO FIT WF-2 TRIM TO CONTOUR OF RAIL AFTER ASSEMBLY.

ALL BLUMCRAFT POSTS AND HANDRAILS APPLICABLE.
POST AND MOUNTING DETAILS SHOWN ON PREVIOUS PAGES.

4'-0" MAXIMUM POST SPACING. SCALE 3/8" = 1'-0"

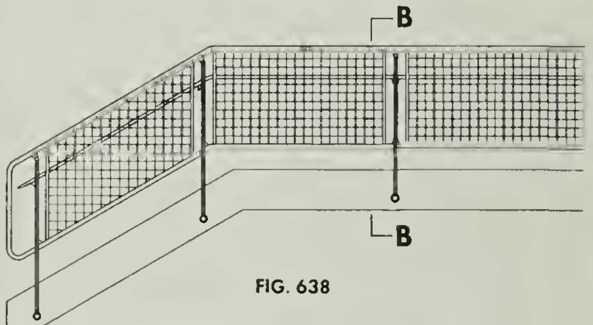


FIG. 638

PANELS RECESSED IN RAILS
(WITH AUXILIARY HANDRAIL)

ALL PANELS OVER 3'-0" IN HEIGHT WILL BE FURNISHED WITH VERTICAL REINFORCEMENTS AS REQUIRED.

DIMENSION SHEETS AVAILABLE FOR ORDERING SCALE 3/16" = 1'-0"

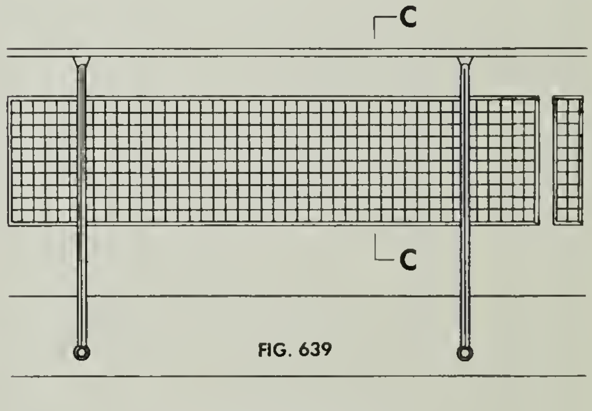


FIG. 639

FLOATING PANELS

PANELS FURNISHED WITH WF-TRIM ON FOUR SIDES, WF-1 OR WF-2

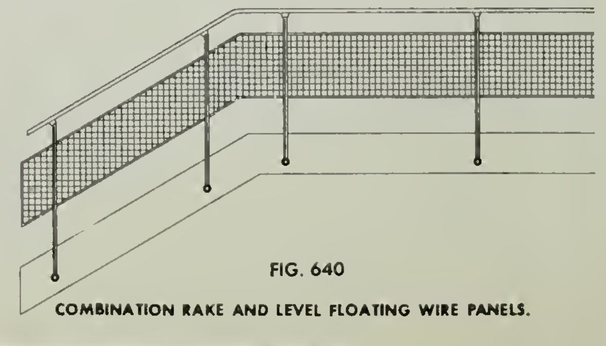
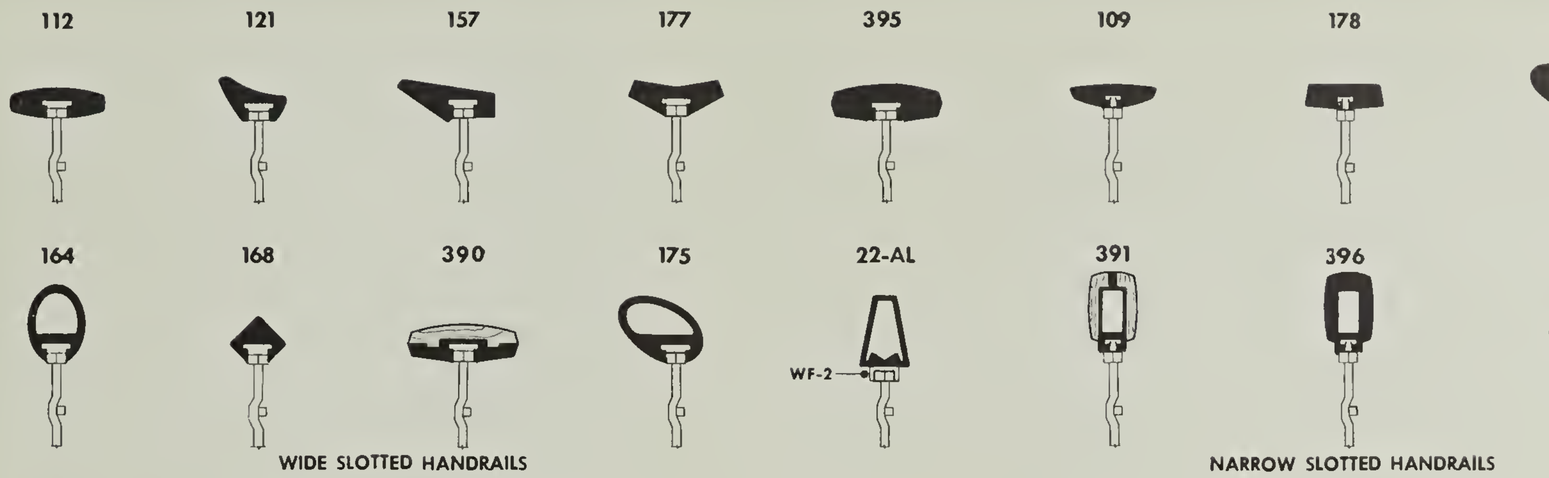


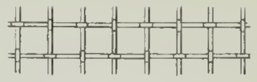
FIG. 640

COMBINATION RAKE AND LEVEL FLOATING WIRE PANELS.

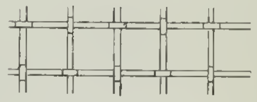

112
121
157
177
395
109
178
176
164
168
390
175
22-AL
391
396
167
WF-2
WIDE SLOTTED HANDRAILS
NARROW SLOTTED HANDRAILS

OPTIONAL HANDRAILS FILLER STRIP FS-2 OR FS-3 REQUIRED IN RAIL SLOTS NOT FILLED BY WIRE PANELS

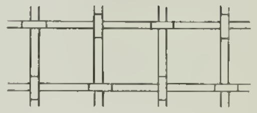
FULL SIZE SECTIONS PAGES — 146-149



1" SQUARE MESH
1/8" SQUARE WIRE ONLY

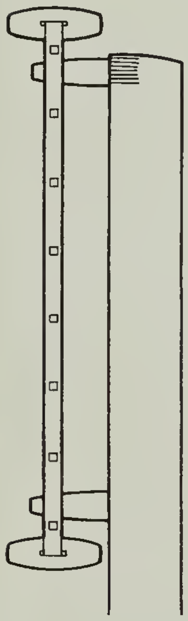


1 1/2" SQUARE MESH
3/16" SQUARE WIRE ONLY



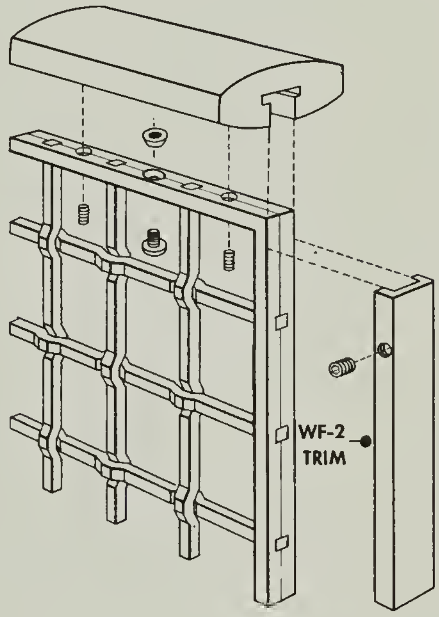
2" SQUARE MESH
1/4" SQUARE WIRE ONLY

WIRE PANELS

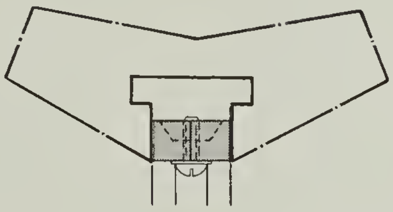


SECTION A-A

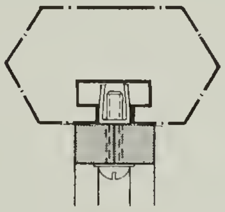
SCALE 1 1/2" = 1'-0"



RECESSED PANEL ASSEMBLY

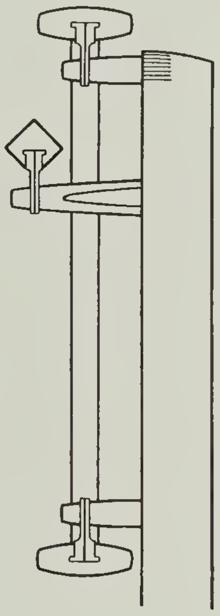


WIRE PANEL FRAME FOR WIDE SLOTTED HANDRAILS



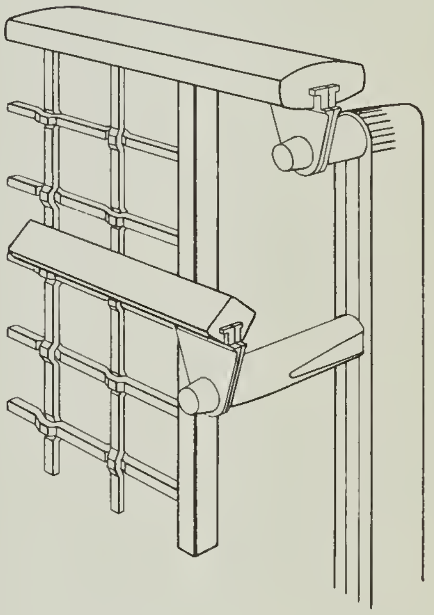
WIRE PANEL FRAME FOR NARROW SLOTTED HANDRAILS

HALF SIZE DETAIL

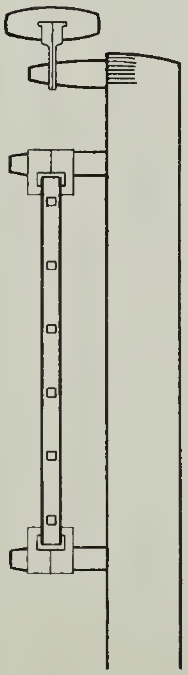


SECTION B-B

SCALE 1 1/2" = 1'-0"

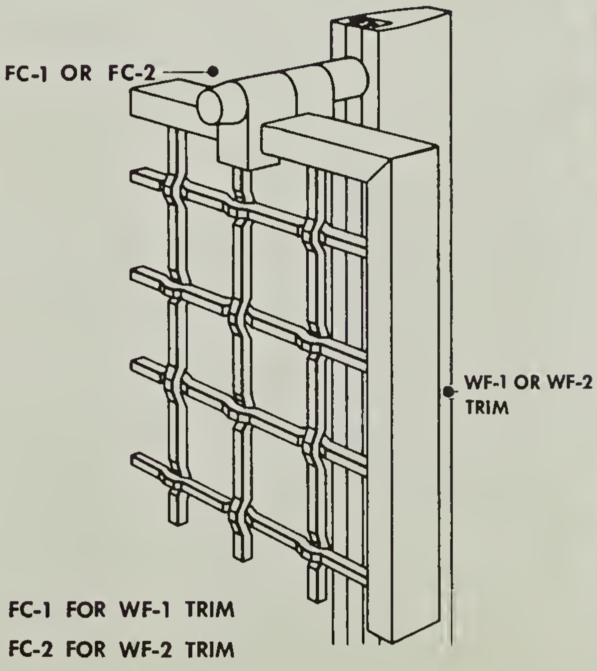


RECESSED PANEL ASSEMBLY



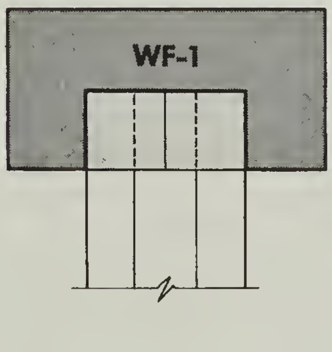
SECTION C-C

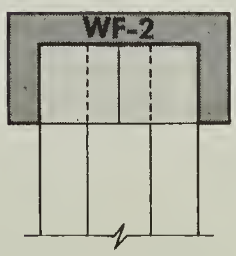
SCALE 1 1/2" = 1'-0"


FC-1 OR FC-2
WF-1 OR WF-2
TRIM

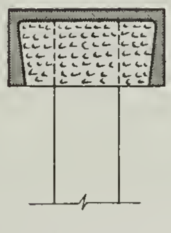
FC-1 FOR WF-1 TRIM
FC-2 FOR WF-2 TRIM

FLOATING PANEL ASSEMBLY

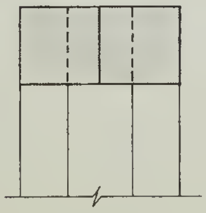




ALTERNATE TRIM

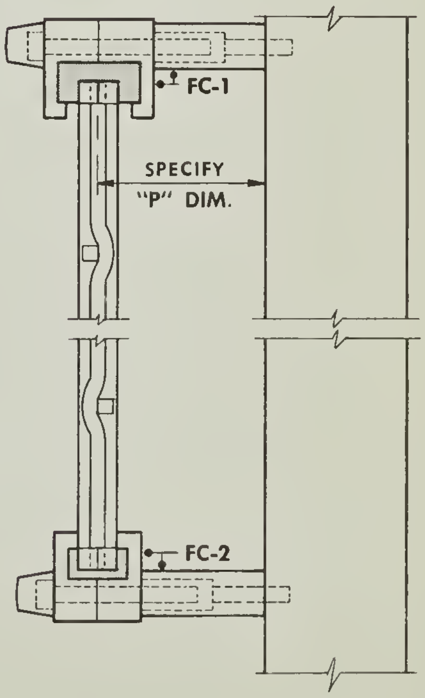


PLASTIC ALUMINUM FILLER ON SLOPED MEMBERS OF RAKED PANELS



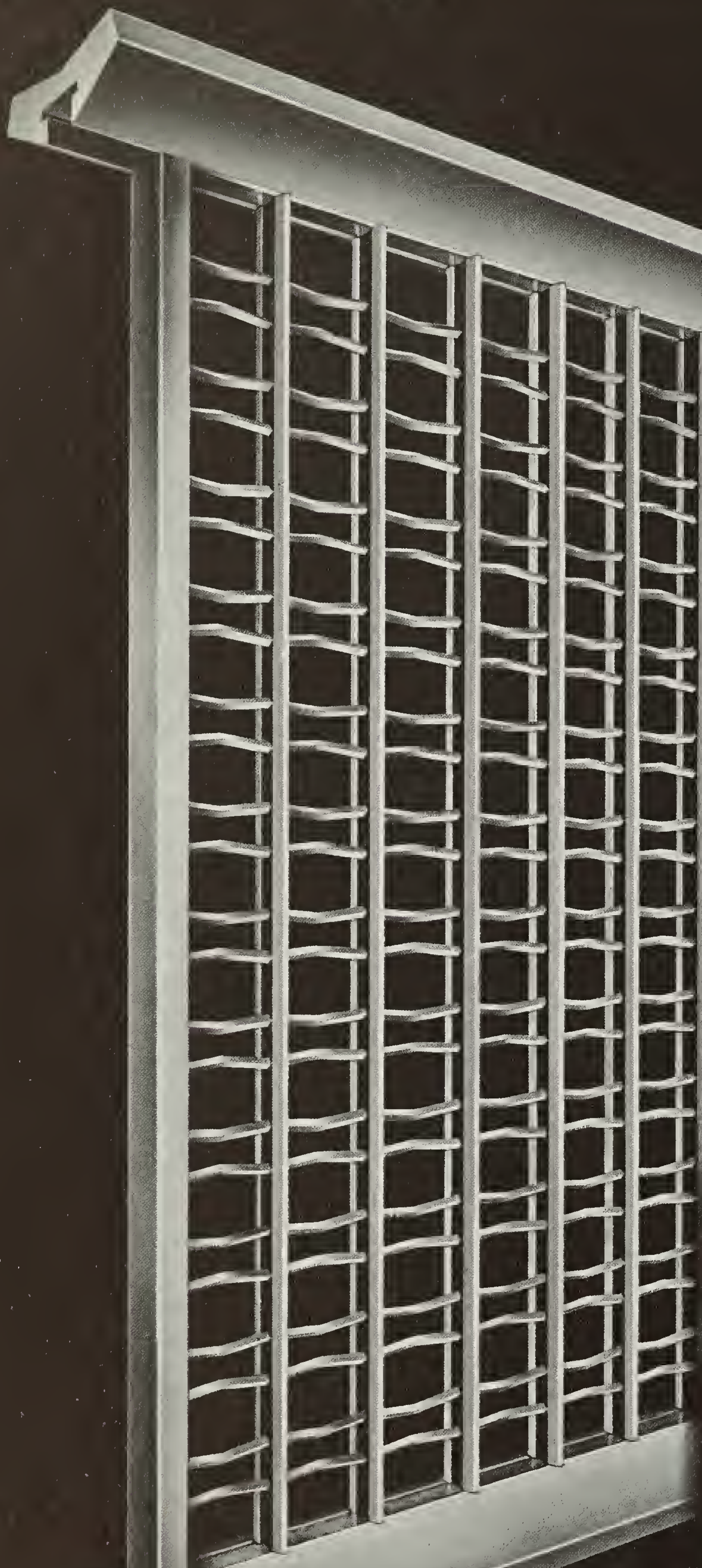
SPLIT FRAME ON ALL FOUR SIDES OF LEVEL PANELS AND ON VERTICAL SIDES OF RAKED PANELS

SECTIONS FULL SIZE


FC-1
SPECIFY
"P" DIM.
FC-2

ADJUSTABLE FC FRAME CONNECTORS

SCALE 3" = 1'-0"



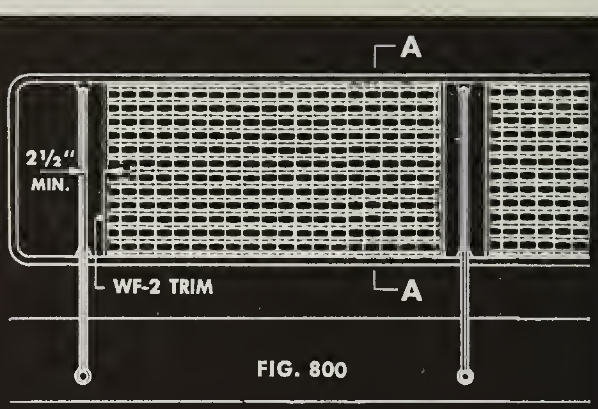


FIG. 800

PANELS RECESSED IN RAILS

PANELS BUILT TO FABRICATOR'S DIMENSIONS BY BLUMCRAFT, IN AN ANODIZE FINISH.

WHEN PANELS ARE PLACED BETWEEN RAILS WF-2 TRIM IS FURNISHED FOR VERTICAL ENDS. FABRICATOR TO FIT WF-2 TRIM TO CONTOUR OF RAIL AFTER ASSEMBLY.

ALL BLUMCRAFT POSTS AND HANDRAILS APPLICABLE.
POST AND MOUNTING DETAILS SHOWN ON PREVIOUS PAGES.

4'-0" MAXIMUM POST SPACING.

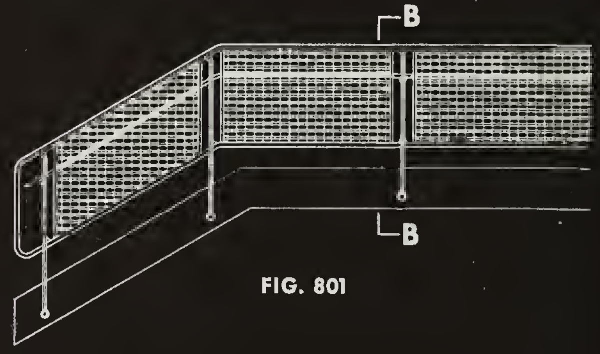
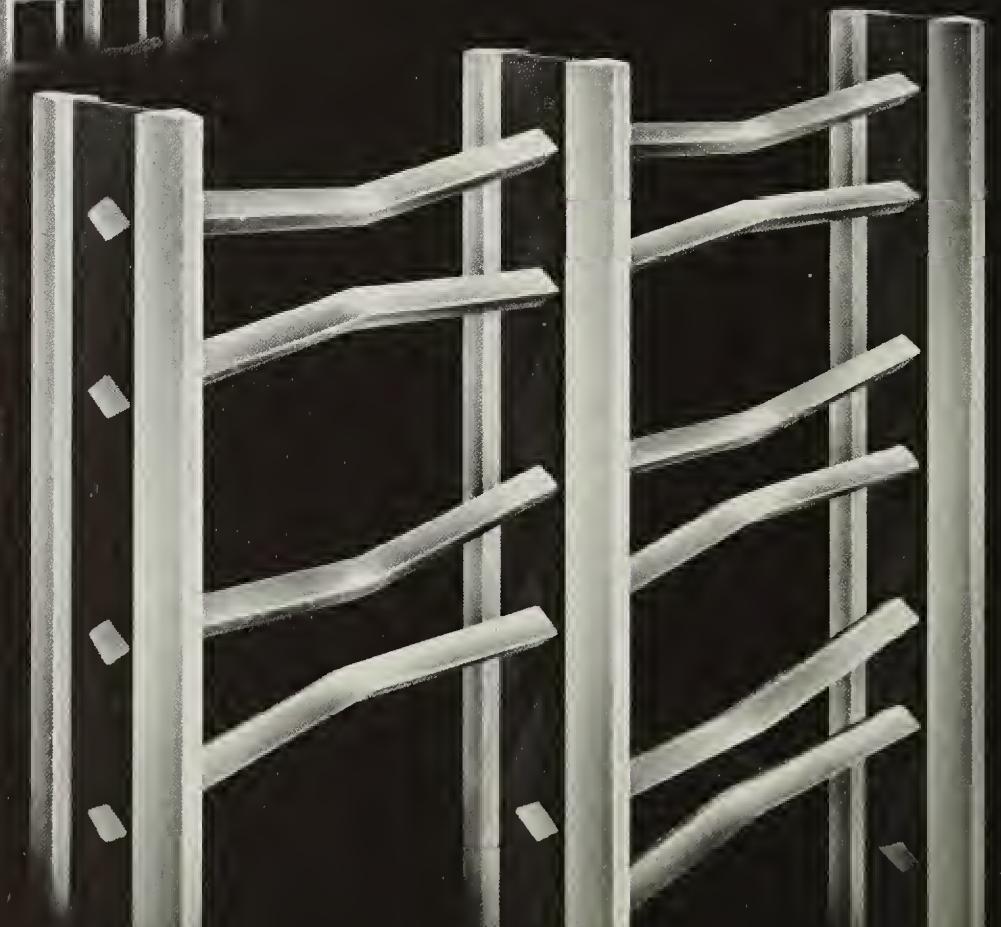
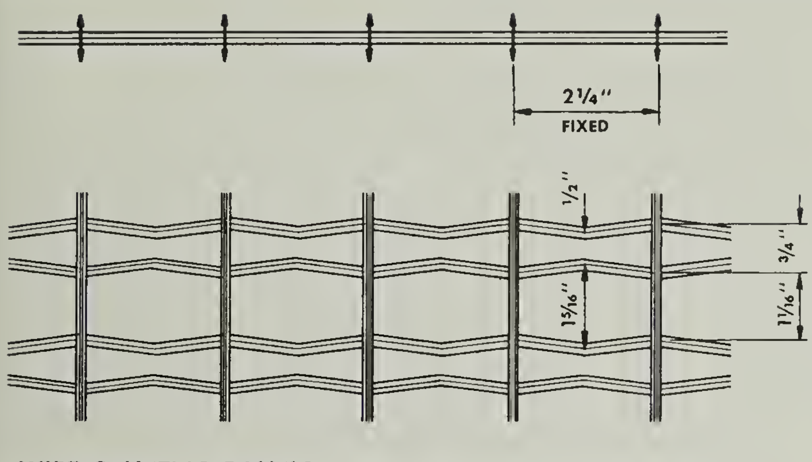


FIG. 801

PANELS RECESSED IN RAILS

ALL PANELS OVER 3'-0" IN HEIGHT WILL BE FURNISHED WITH VERTICAL REINFORCEMENTS AS REQUIRED.



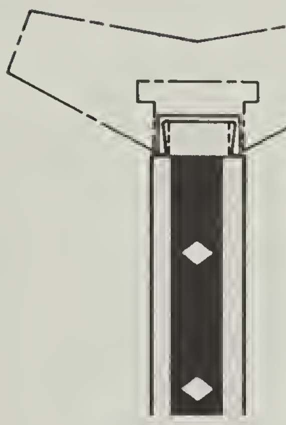

2¼"
FIXED
½"
¾"
1 5/16"
1 1/16"

WIRE-O-METRIC PANELS ALL DIMENSIONS FIXED SCALE 3"=1'-0"

WIRE-O-METRIC PANELS FURNISHED COMPLETELY ASSEMBLED FRAMED AND ANODIZED BY BLUMCRAFT

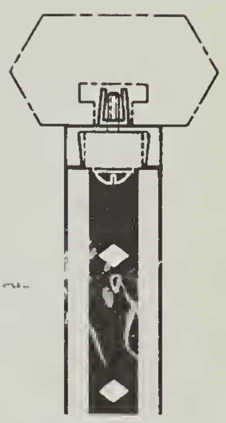
VERTICAL SUPPORTING BARS IN A-204 (A2) CLEAR POLISH ANODIZE OR 145 POLISHED GOLD ANODIZE, RECESSED PORTION IN BLACK

WIRE WEAVE
BRUSHED SATIN ANODIZED FINISH CLEAR OR GOLD

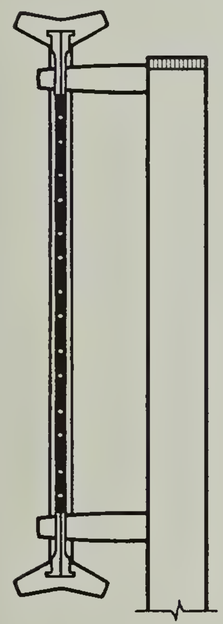


FRAME FOR WIDE SLOTTED HANDRAILS

HALF SIZE DETAIL

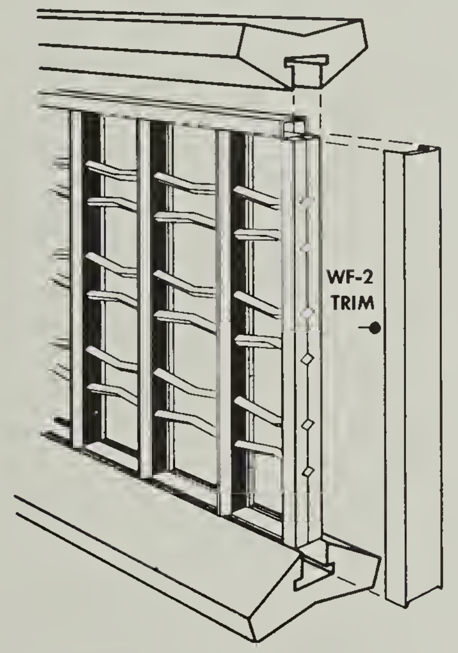


FRAME FOR NARROW SLOTTED HANDRAILS

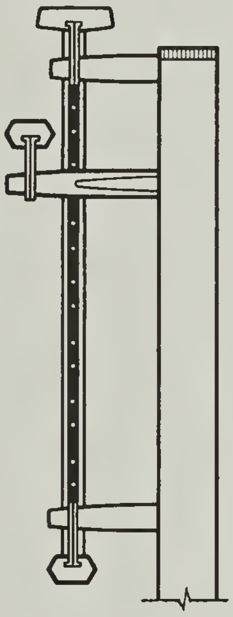


SECTION A-A

SCALE 1½" = 1'-0"

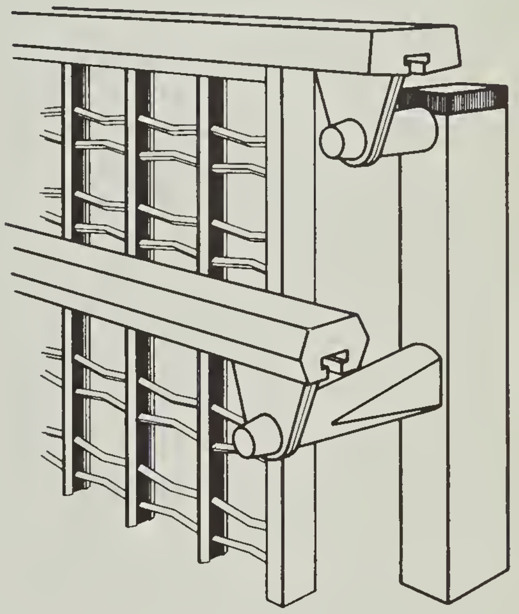


RECESSED PANEL ASSEMBLY

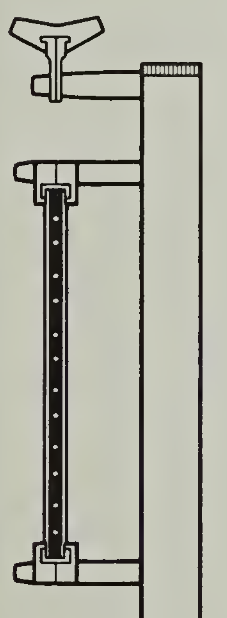


SECTION B-B

SCALE 1½" = 1'-0"

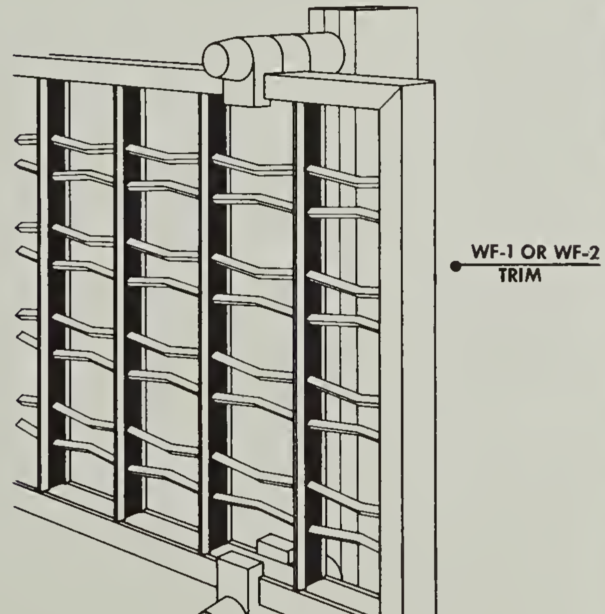


RECESSED PANEL ASSEMBLY



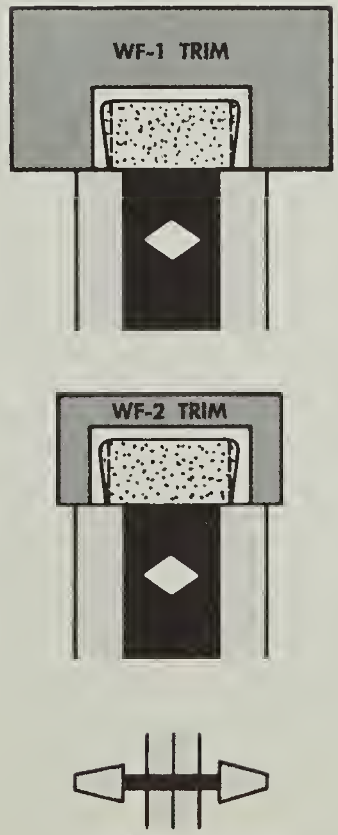
SECTION

SCALE 1½" = 1'-0"

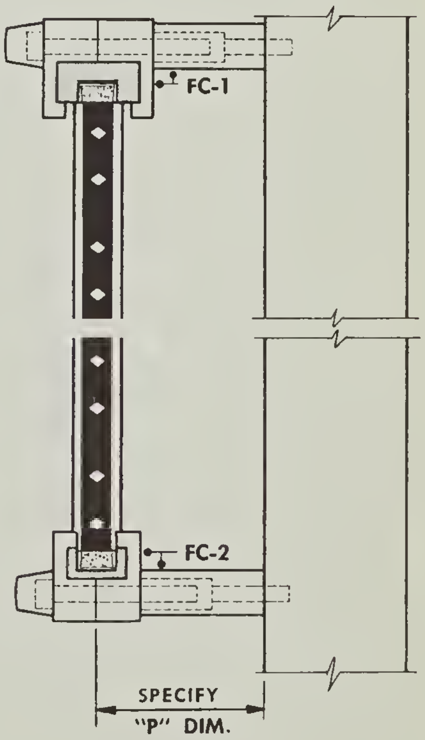

WF-1 OR WF-2
TRIM

FLOATING PANEL ASSEMBLY

PANELS FURNISHED WITH WF-TRIM ON FOUR SIDES, WF-1 OR WF-2

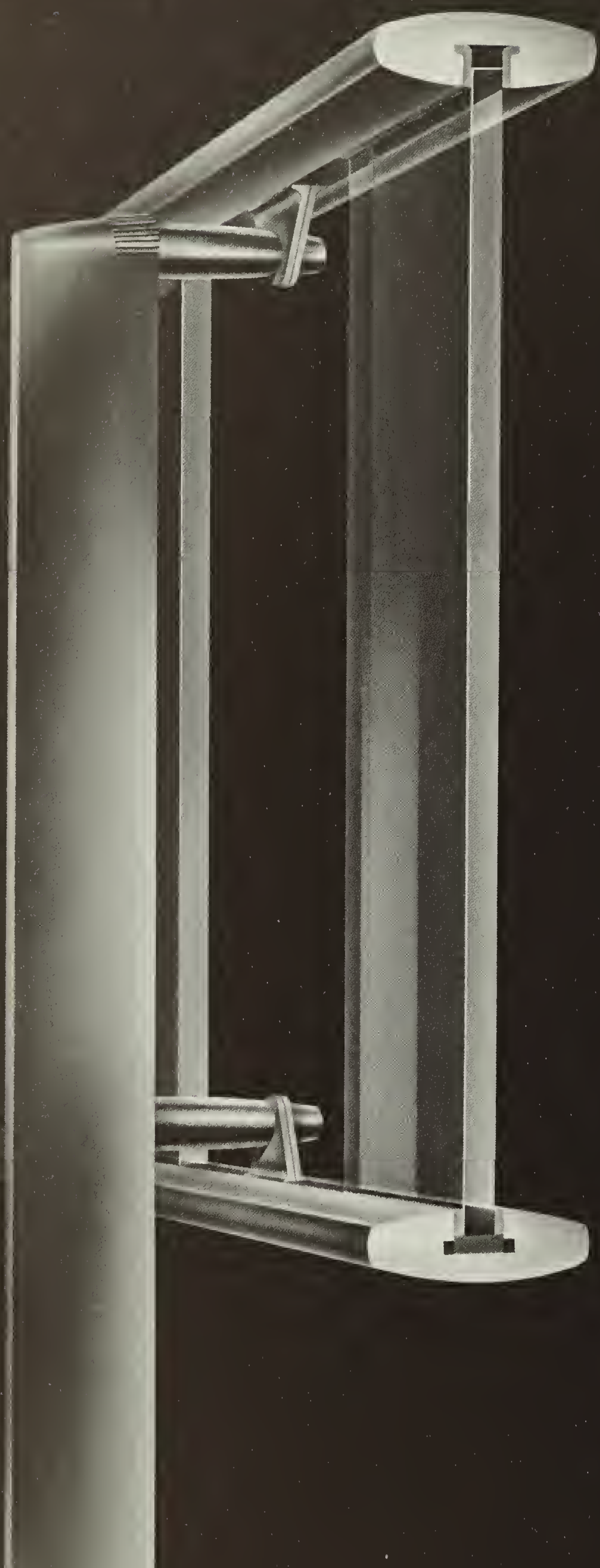

WF-1 TRIM
WF-2 TRIM

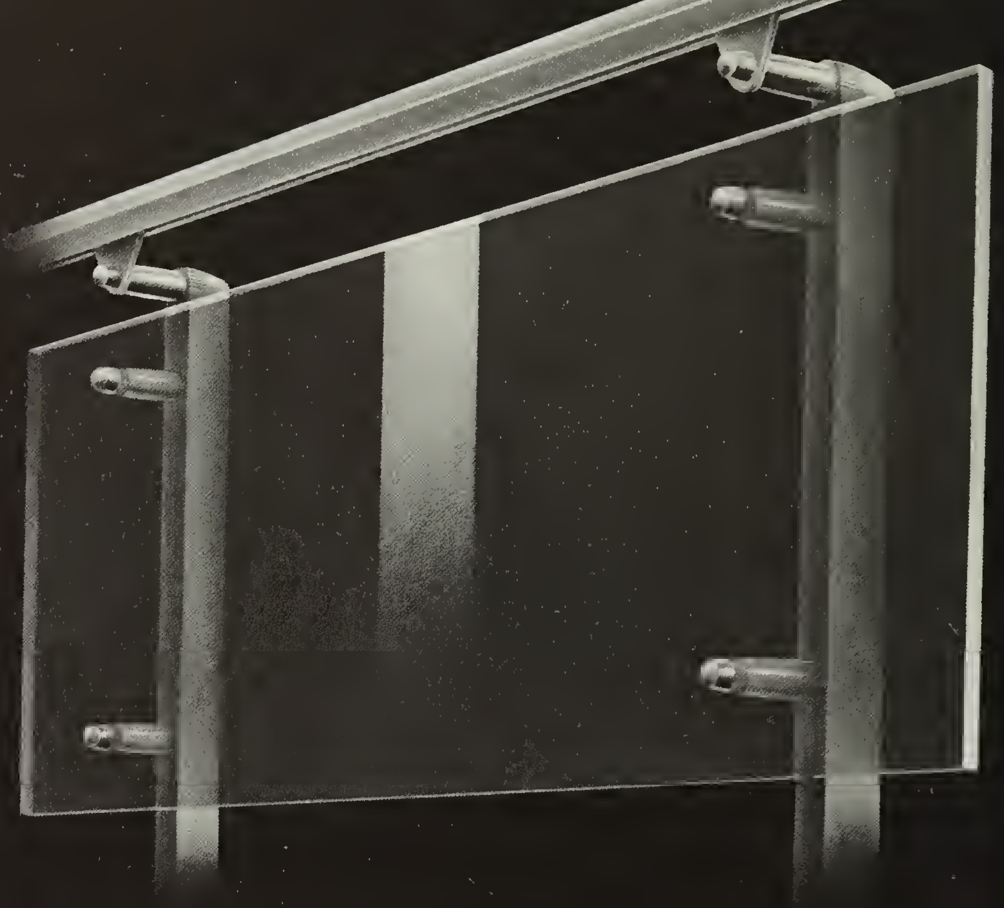
SECTIONS FULL SIZE

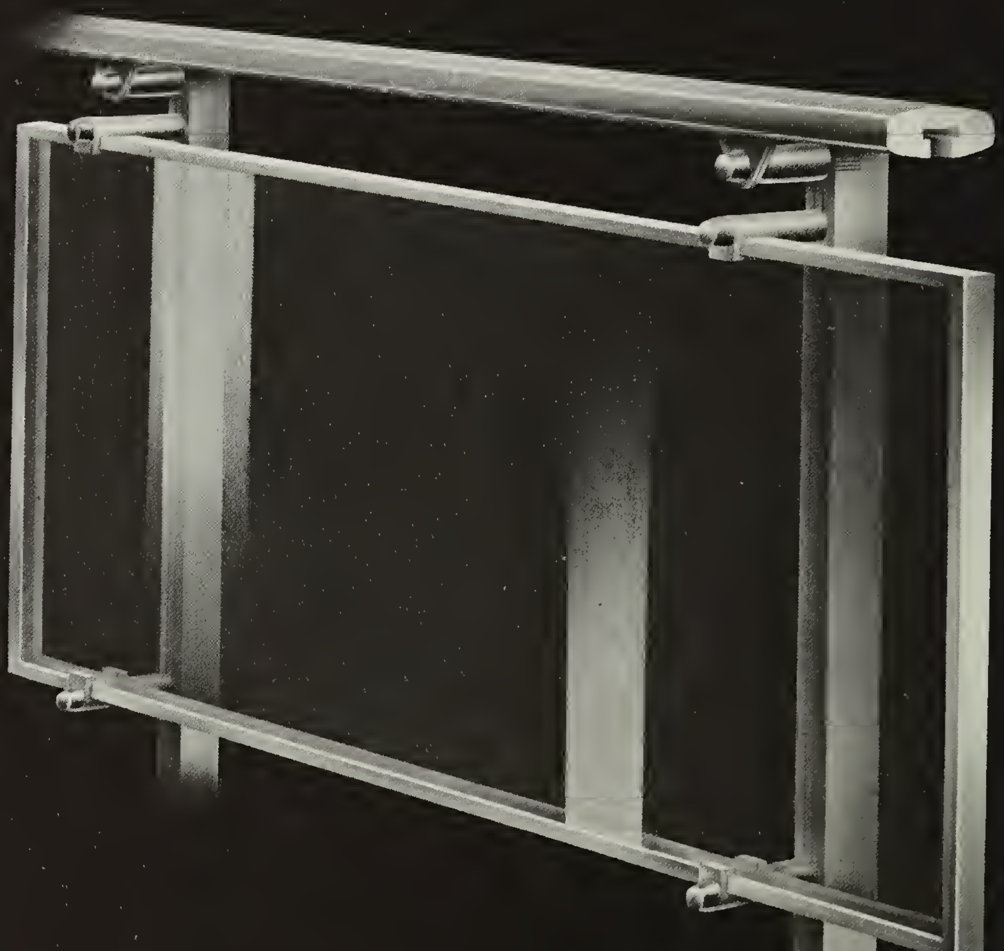

FC-1
FC-2
SPECIFY
"P" DIM.

SCALE 3" = 1'-0"

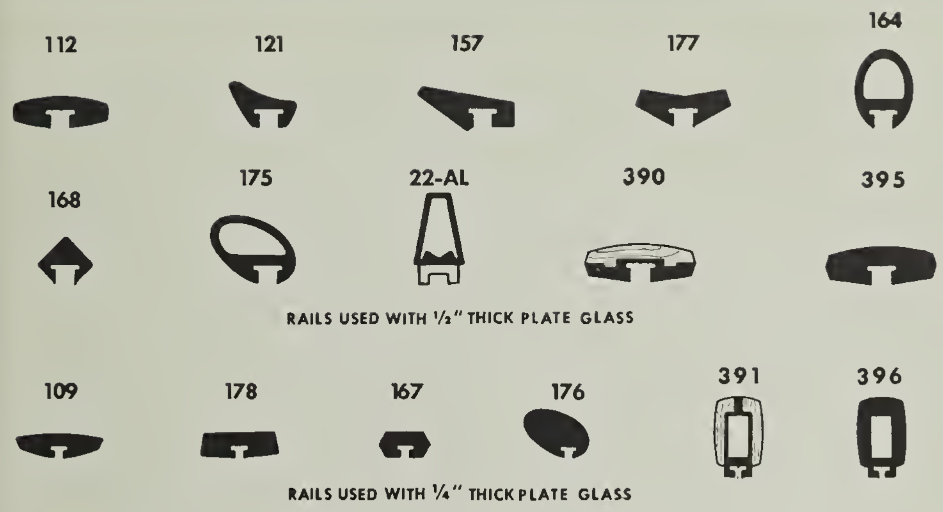
ADJUSTABLE FC FRAME CONNECTORS



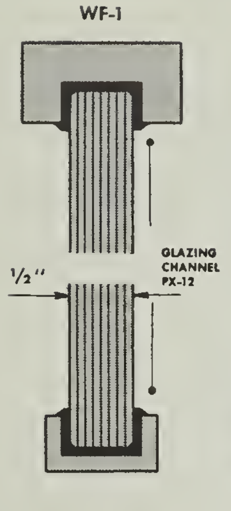




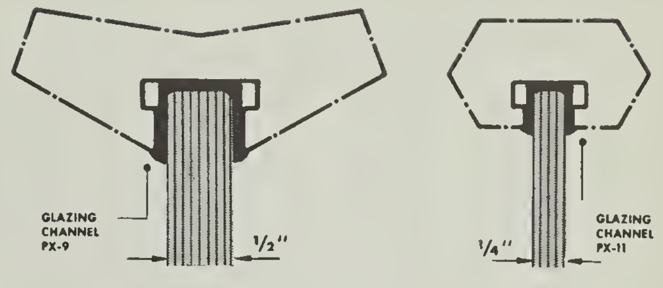
DELUXE-LINE


112
121
157
177
164
168
175
22-AL
390
395
RAILS USED WITH ½" THICK PLATE GLASS
109
178
167
176
391
396
RAILS USED WITH ¼" THICK PLATE GLASS

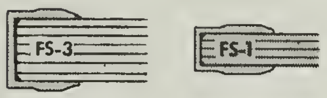
HANDRAILS FILLER STRIP FS-2 OR FS-3 REQUIRED IN RAIL SLOTS NOT FILLED BY GLASS PANELS


WF-1
½"
GLAZING CHANNEL PX-12

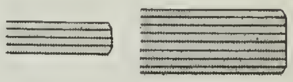
WF-2


GLAZING CHANNEL PX-9
½"
¼"
GLAZING CHANNEL PX-11

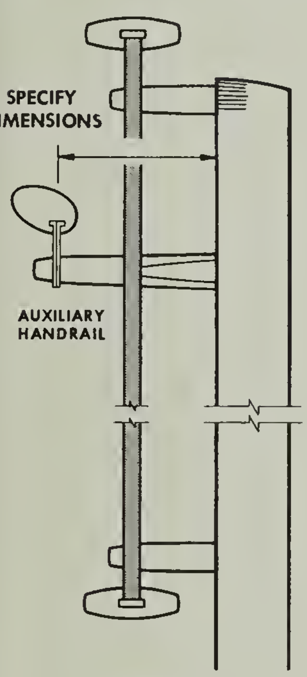
SECTIONS HALF SIZE



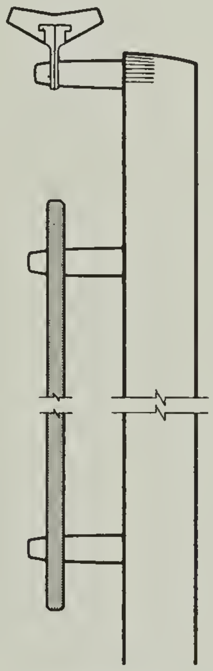
SNAP ON ALUMINUM FRAME



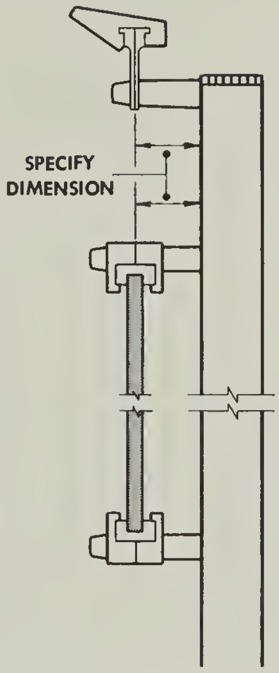
GLASS EDGES GROUND OR POLISHED


SPECIFY DIMENSIONS
AUXILIARY HANDRAIL

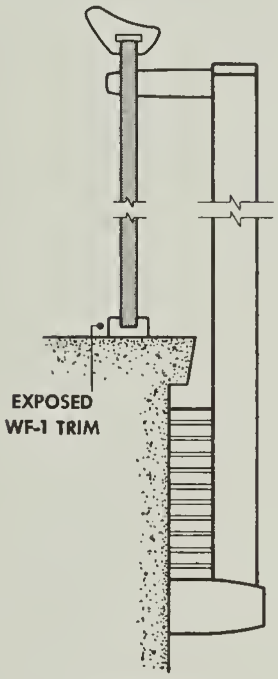
SECTION A-A



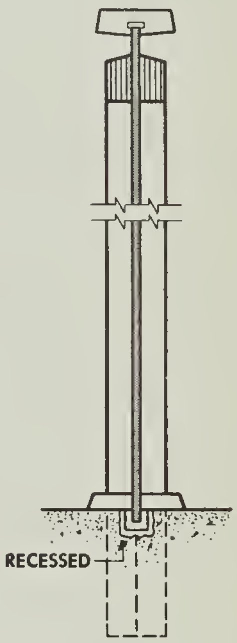
SECTION B-B


SPECIFY DIMENSION

SECTION C-C
SCALE 1½" = 1'-0"


EXPOSED WF-1 TRIM

SECTION D-D



SECTION E-E

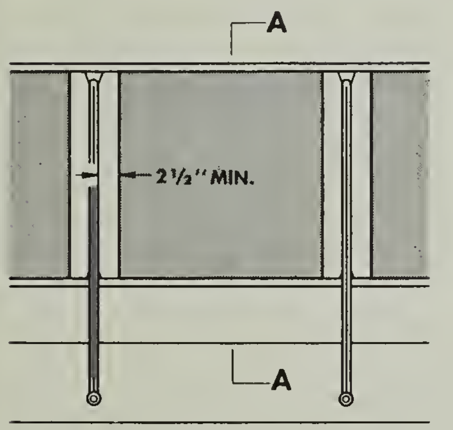


FIG. 641

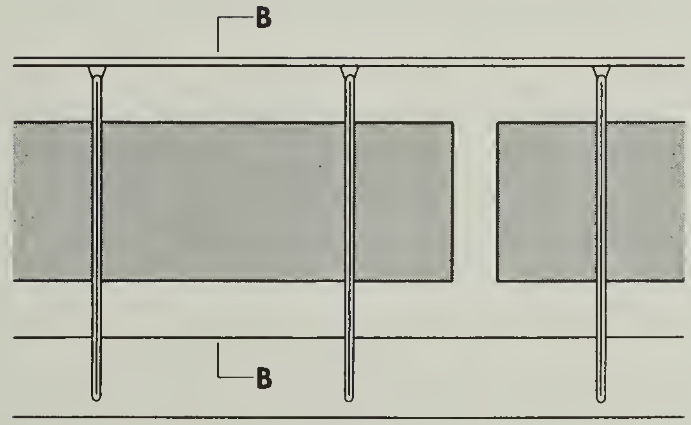


FIG. 642

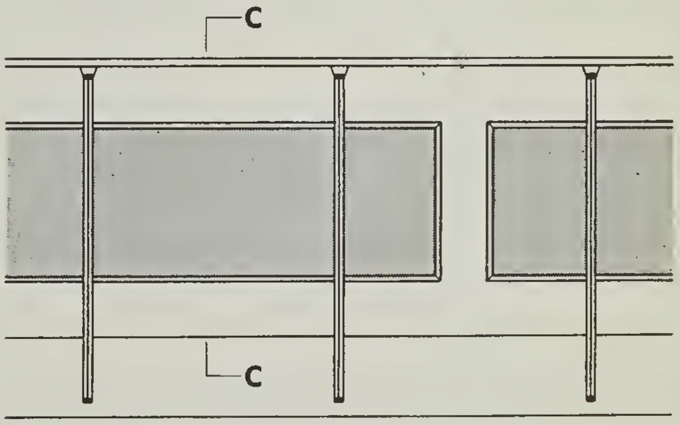
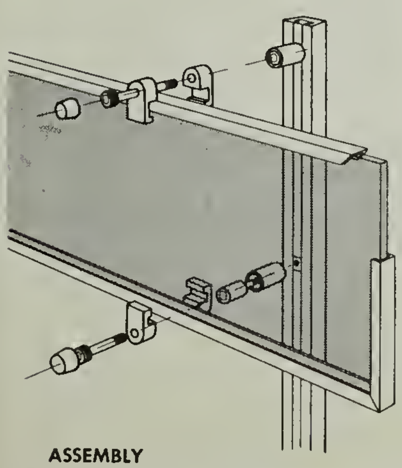
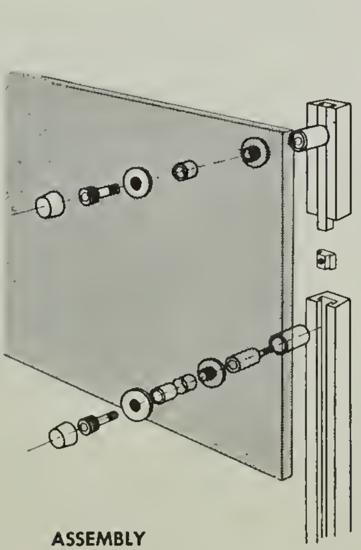


FIG. 643



ASSEMBLY



ASSEMBLY

FOR GLAZING AND FOR SIZE AND LOCATION OF HOLES, FOLLOW SPECIFICATIONS PRESCRIBED BY GLASS MANUFACTURERS. BLUMCRAFT DOES NOT FURNISH GLASS.

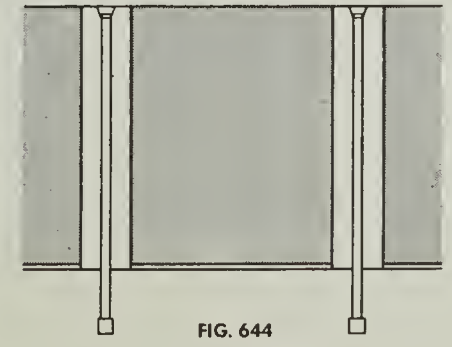


FIG. 644

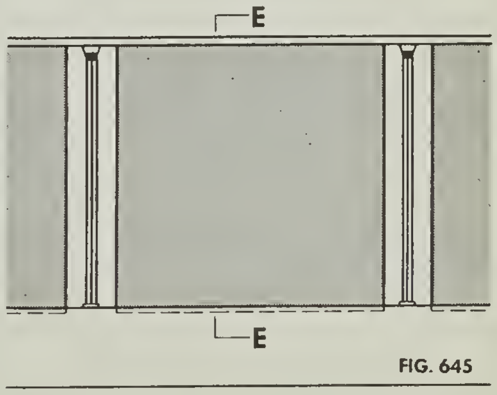


FIG. 645

SCALE ⅜" = 1'-0"

ALL BLUMCRAFT POSTS APPLICABLE 4'-0" MAX. POST SPACING

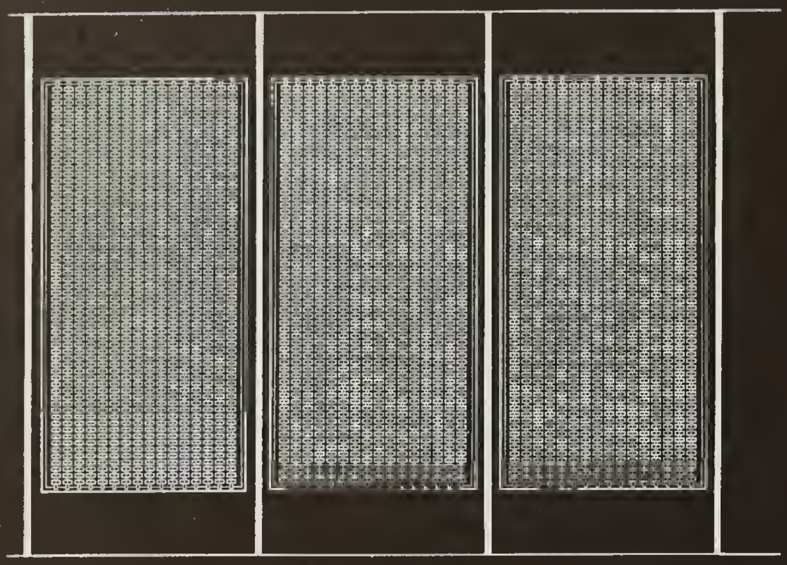


FIG. 618 STYLE "D" FACET

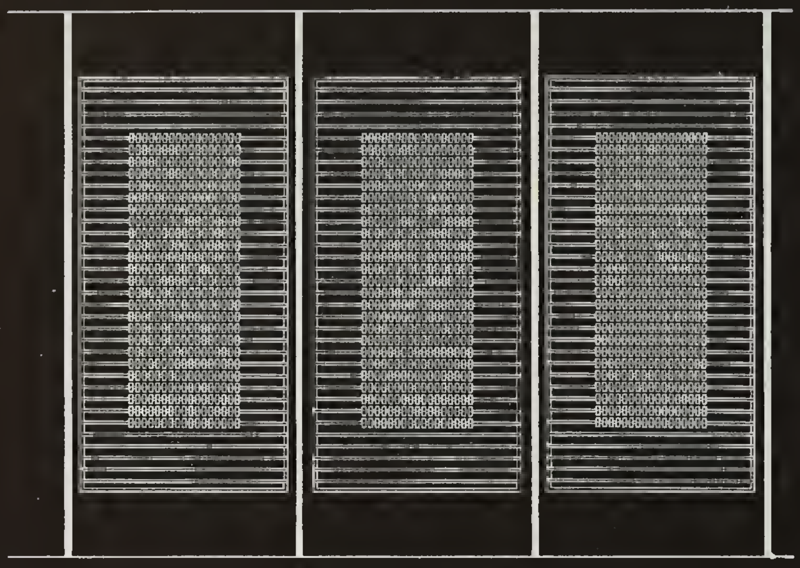


FIG. 621 STYLE "D" FACET

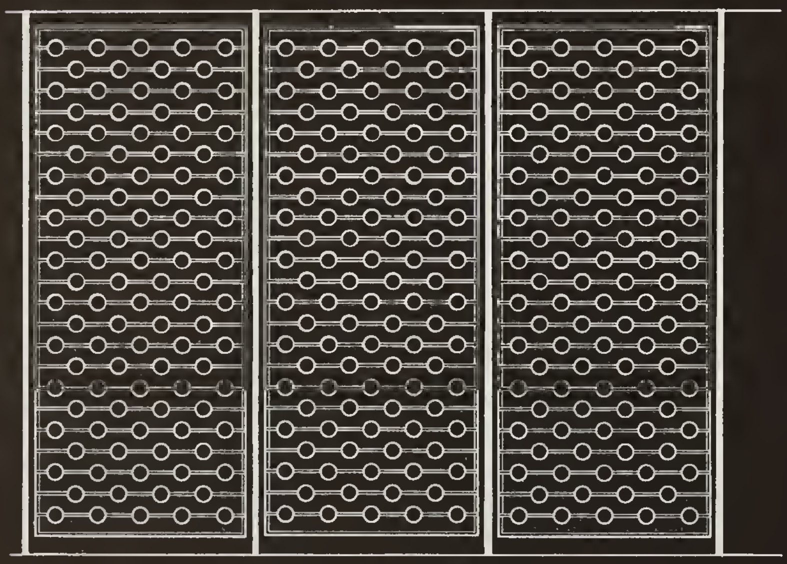


FIG. 619 STYLE "C" FACET

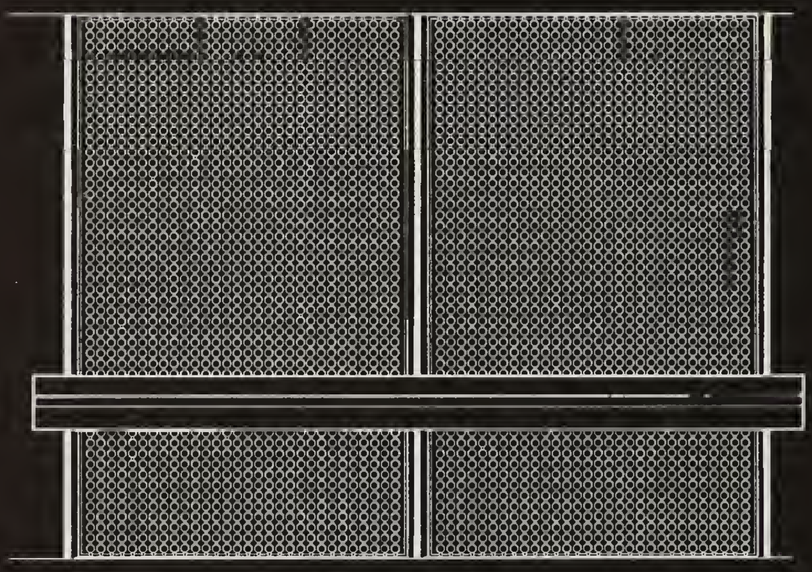


FIG. 622 STYLE "R" FACET

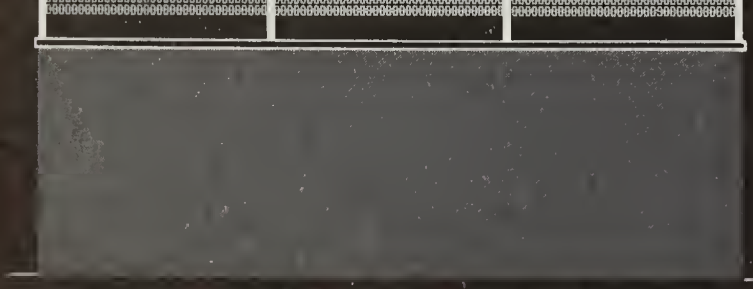


FIG. 620 STYLE "D" FACETS WITH SHORT POST FOR COUNTER SCREEN

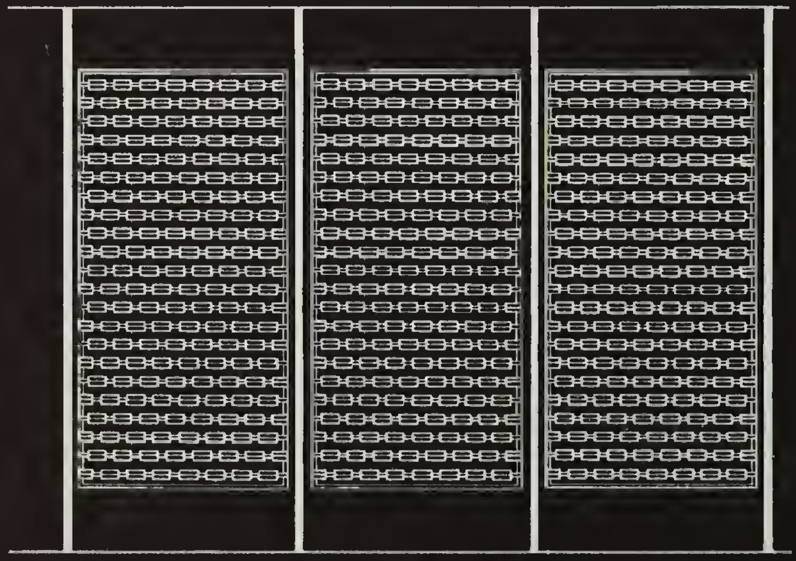
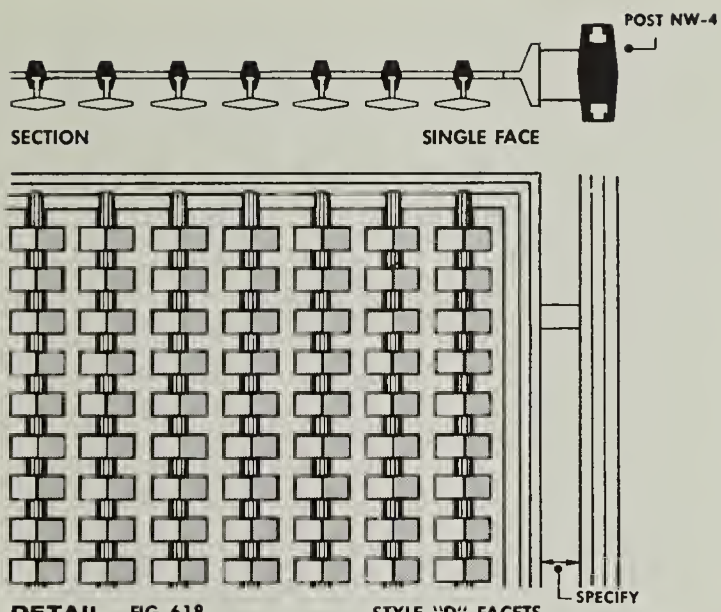
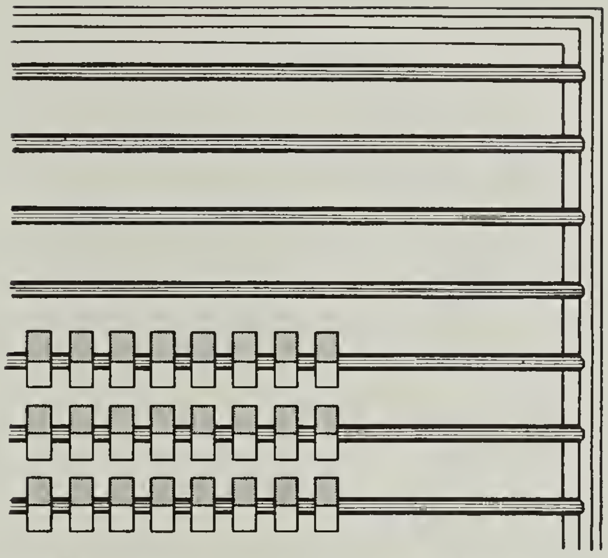


FIG. 623 STYLE "V" FACET

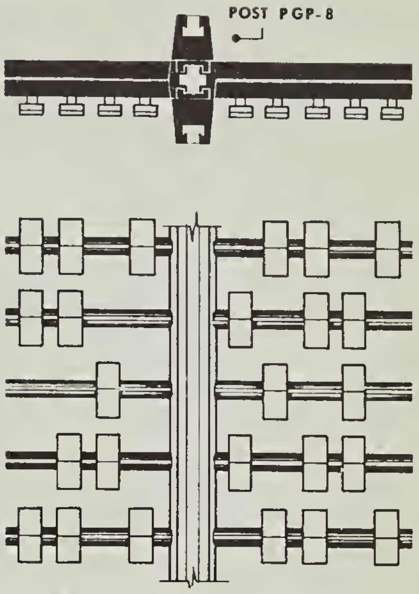
GRILL-O-METRIC PANELS WITH SPANS OVER 4'-0" WIDTH AND 4'-6" HEIGHT MUST USE A CENTER SUPPORT


POST NW-4
SECTION
SINGLE FACE
SPECIFY

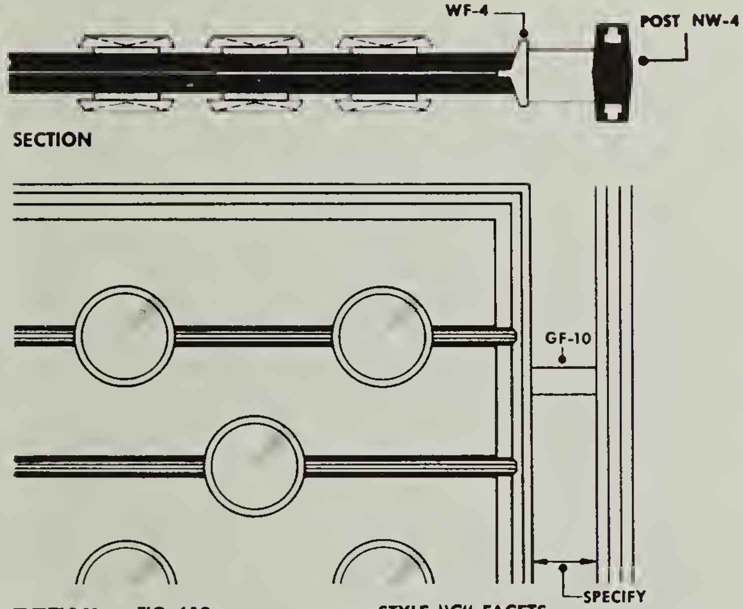
DETAIL FIG. 618 STYLE "D" FACETS



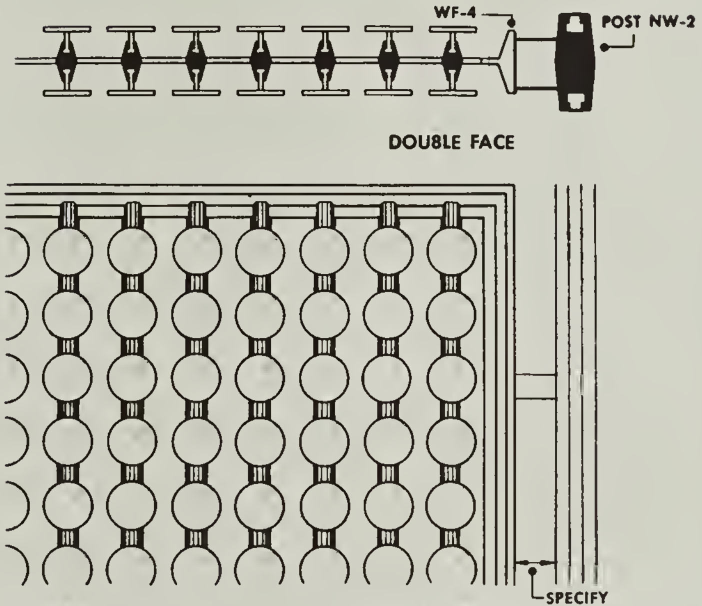
DETAIL FIG. 621 STYLE "D" FACETS



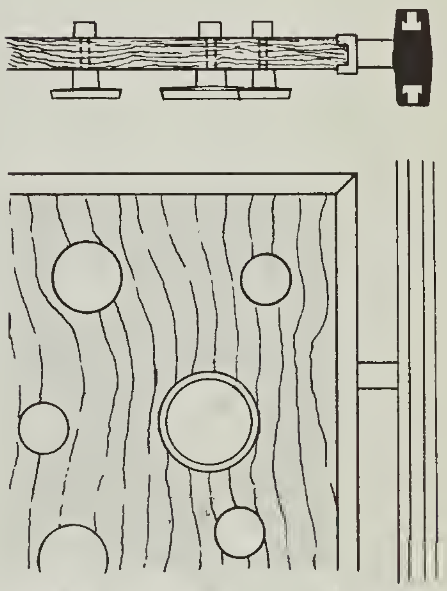
DETAIL FIG. 621A w/ POST PGP-8


WF-4
POST NW-4
SECTION
GF-10
SPECIFY

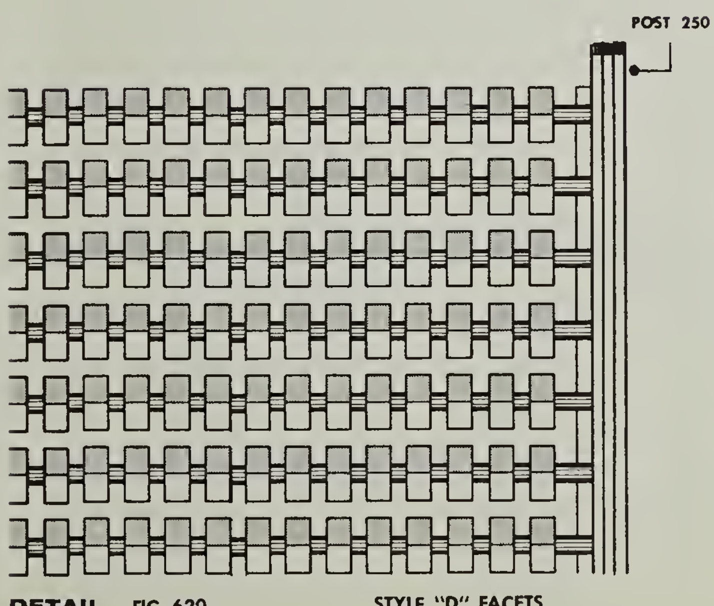
DETAIL FIG. 619 STYLE "C" FACETS


WF-4
POST NW-2
DOUBLE FACE
SPECIFY

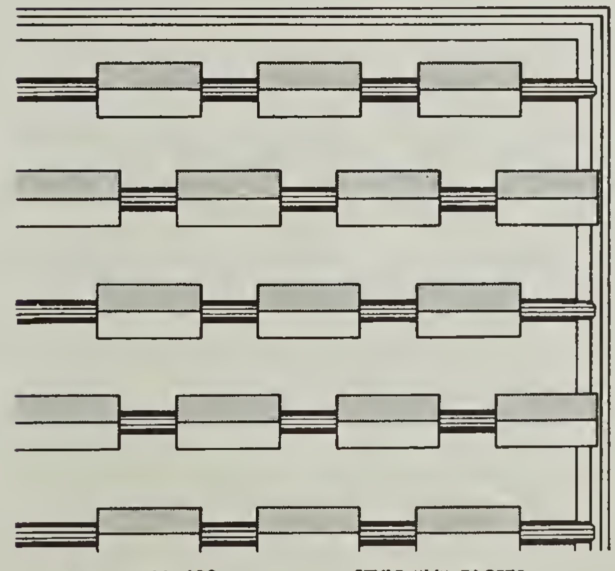
DETAIL FIG. 622 STYLE "R" FACETS



DETAIL FIG. 622A BF FACETS

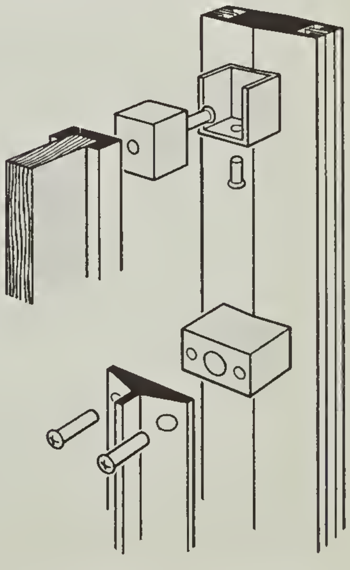


DETAIL FIG. 620 STYLE "D" FACETS



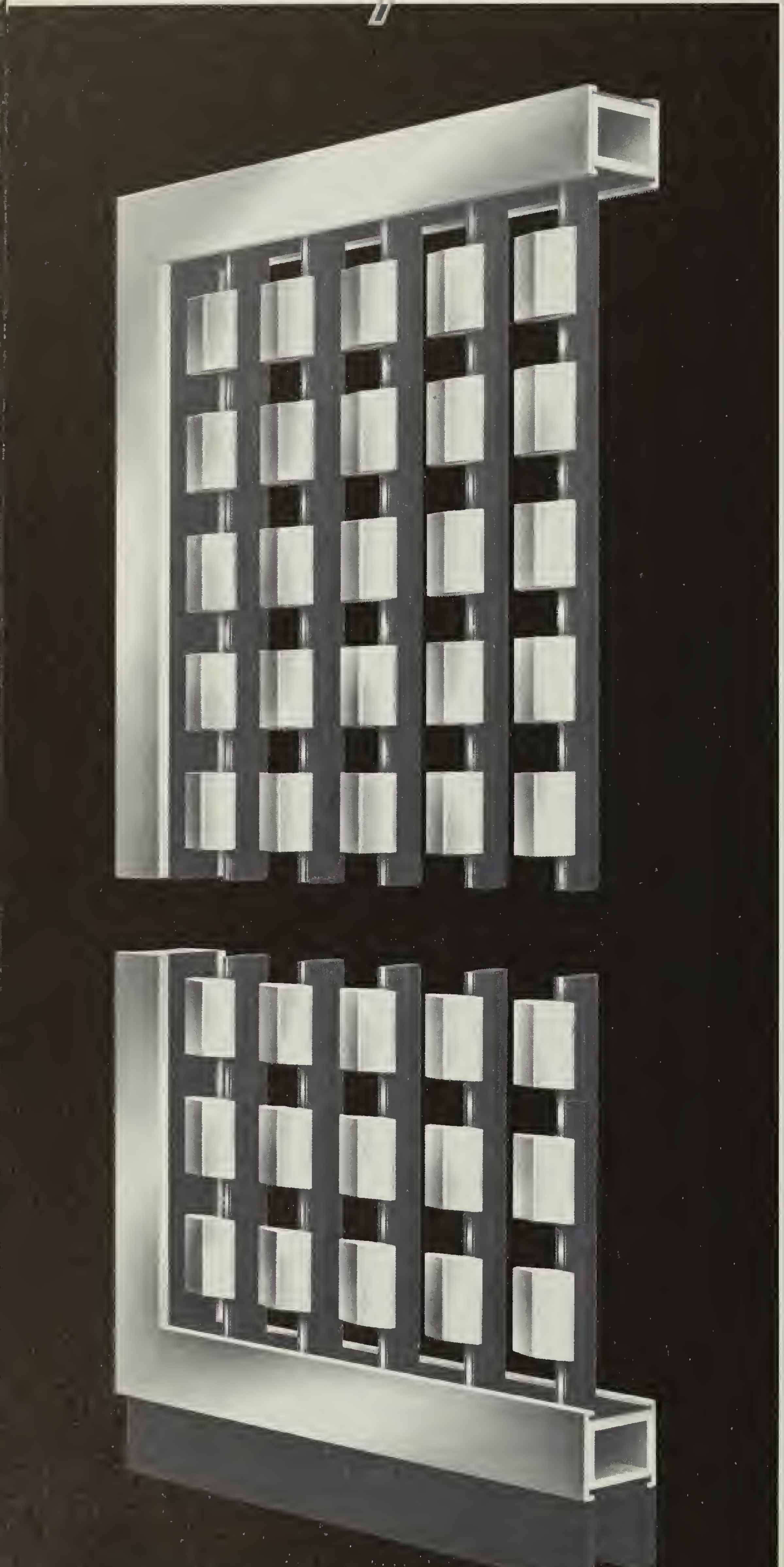
DETAIL FIG. 623 STYLE "V" FACETS

GC-12 CONNECTOR FOR PANELS WITH WF-1 OR WF-2 FRAME



GC-10 CONNECTOR FOR PANELS WITH WF-4 FRAME

GRILL-O-METRIC PANELS WITH SPANS OVER 4'-0" WIDTH AND 4'-6" HEIGHT MUST USE A CENTER SUPPORT



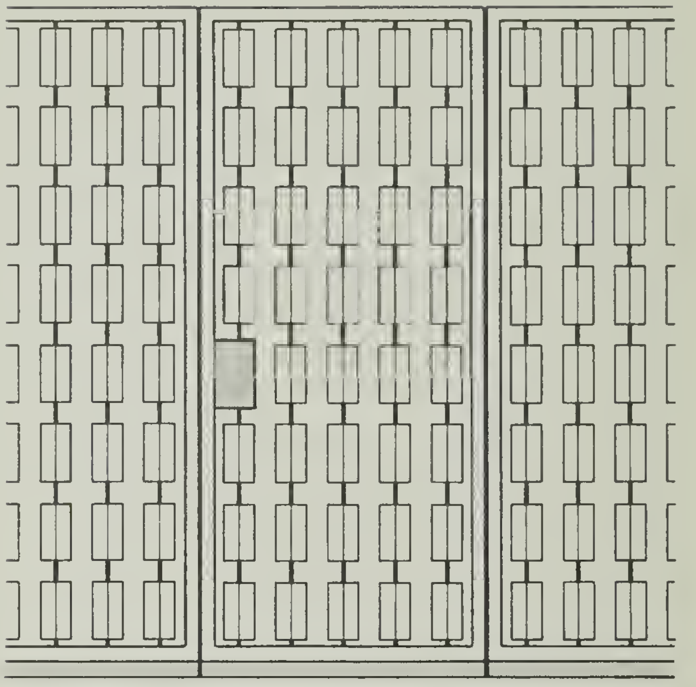


FIG. 820 STYLE "L" GRILL-O-METRICS HINGED GATE WITH TWO FIXED PANELS

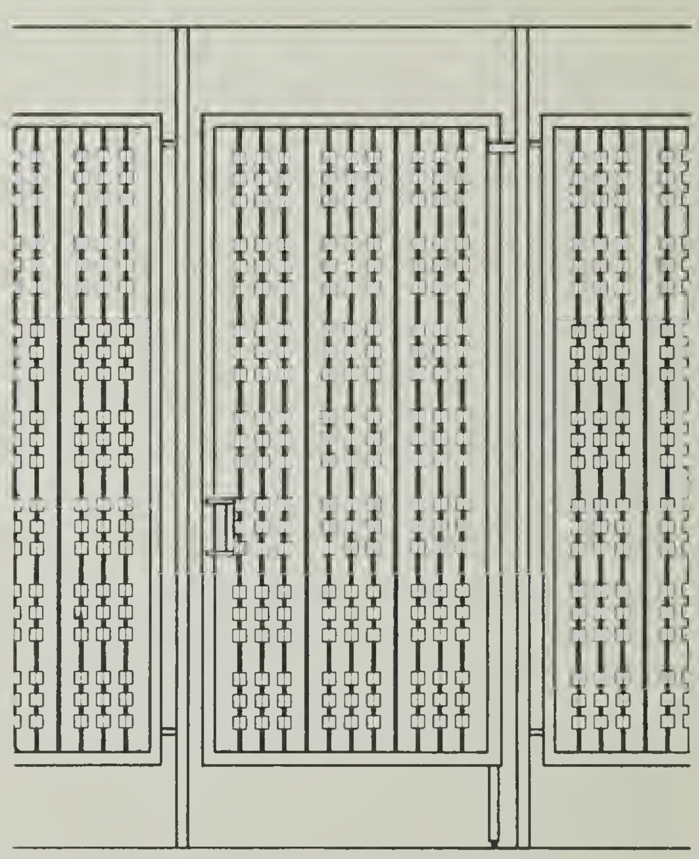
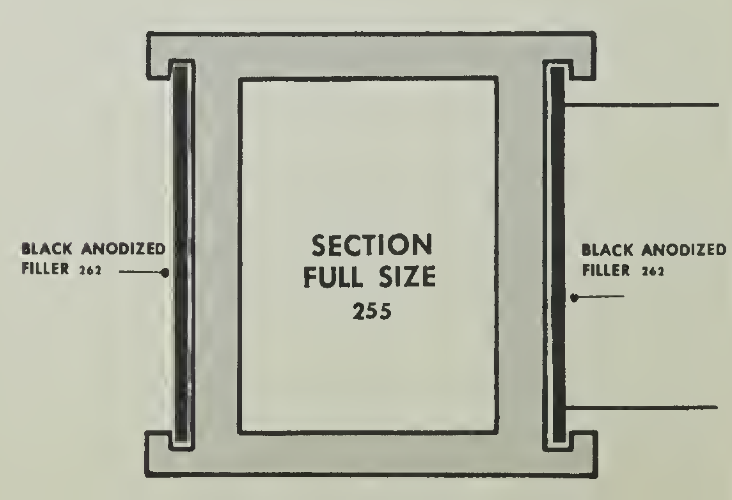


FIG. 821 STYLE "S" GRILL-O-METRIC GATE AND PANEL WITH SUPPORTING POSTS. ALL BLUMCRAFT POSTS APPLICABLE.


BLACK ANODIZED FILLER 262
SECTION FULL SIZE 255
BLACK ANODIZED FILLER 262

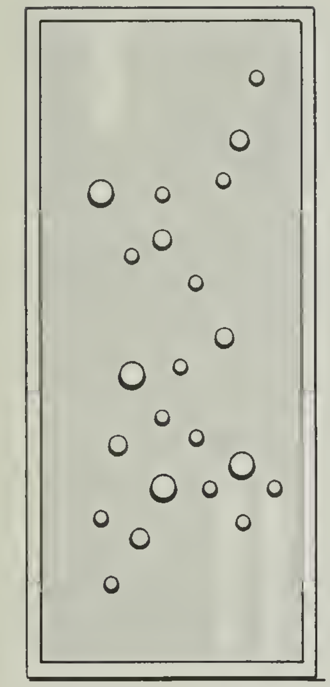


FIG. 822 GLASS, PLASTIC OR WOOD WITH APPLIED FACETS.

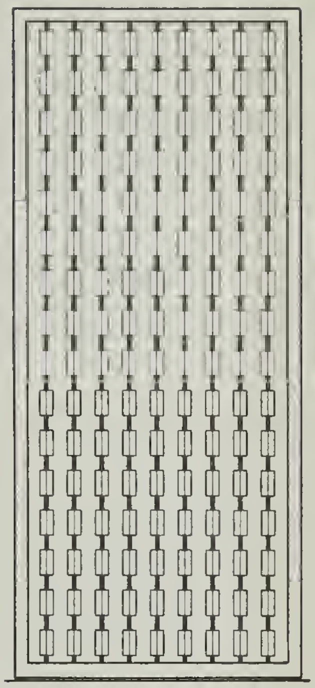


FIG. 823 STYLE "V" GRILL-O-METRICS

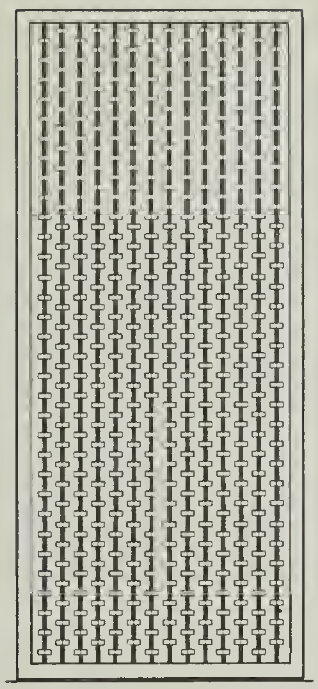


FIG. 824 STYLE "D" GRILL-O-METRICS

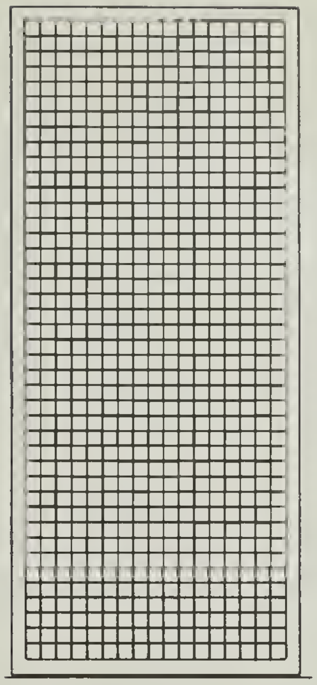


FIG. 825 SQUARE MESH PANELS

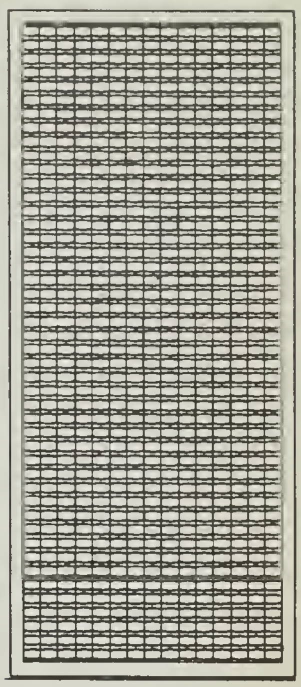


FIG. 826 WIRE-O-METRIC PANELS

TYPICAL PANEL GATES

SCALE 3/8" = 1'-0"

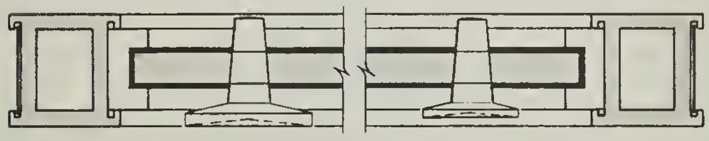


FIG. 822

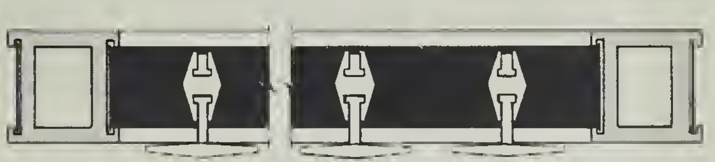


FIG. 823 AND FIG. 824

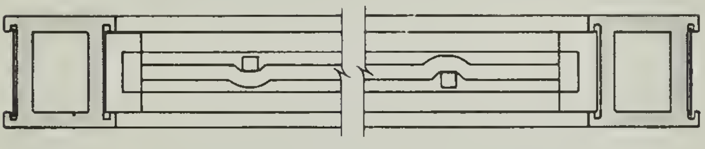


FIG. 825

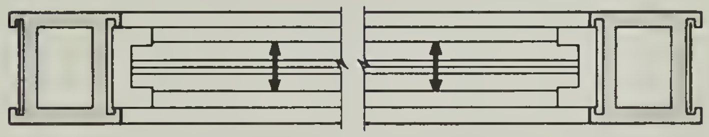


FIG. 826

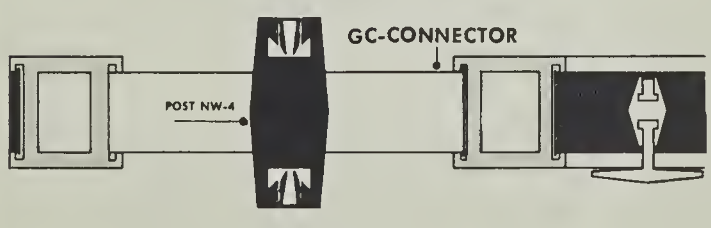


FIG. 821

HORIZONTAL SECTIONS

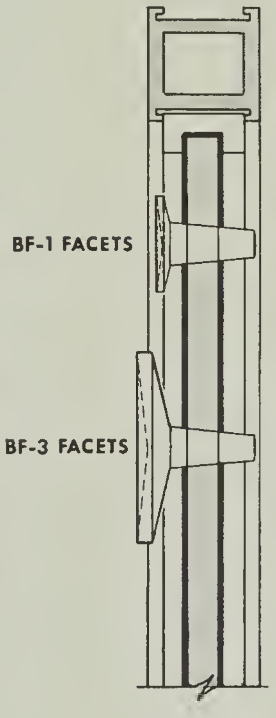


FIG. 822

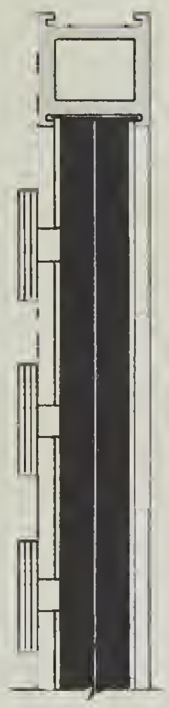


FIG. 821

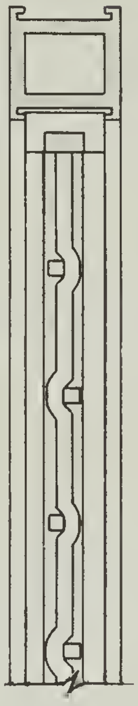


FIG. 825

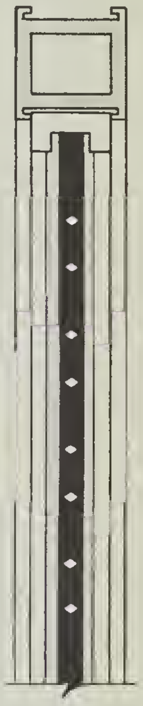
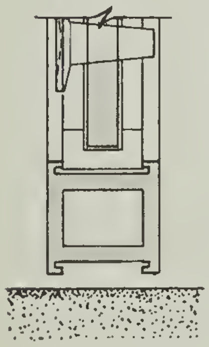
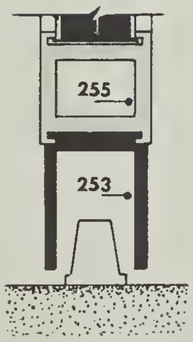


FIG. 826

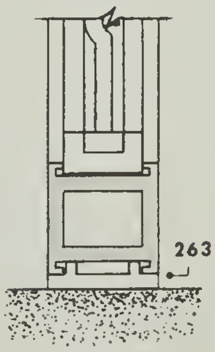
VERTICAL SECTIONS



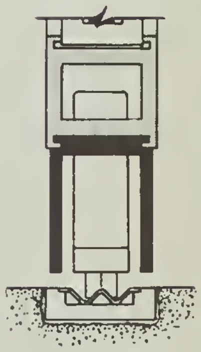
BUTT HINGE



FLOOR CHECK



FIXED PANEL



SLIDING HARDWARE

HINGE ARRANGEMENTS

SCALE 3" = 1'-0"

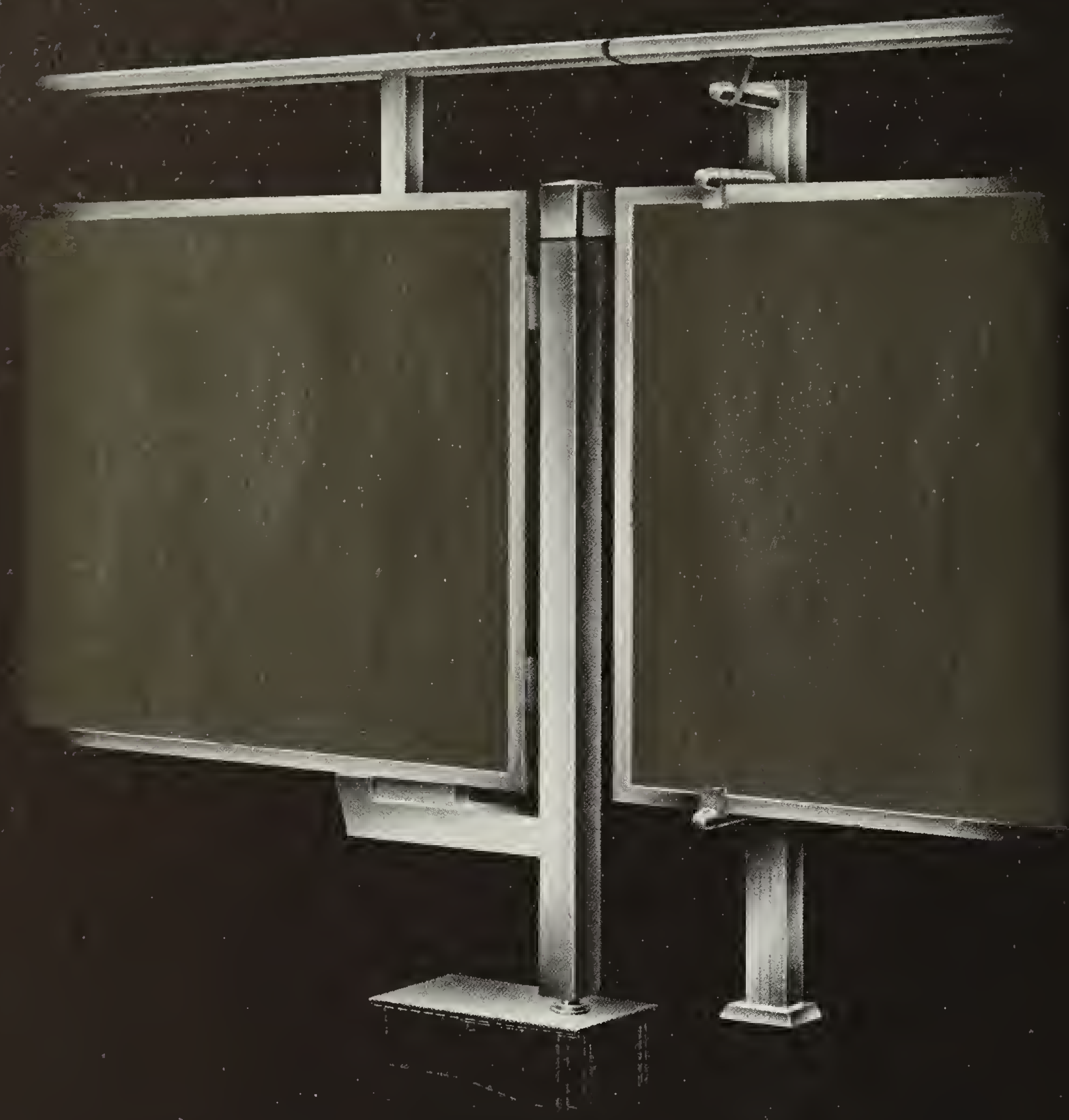
FRAMING FOR GATES FURNISHED WITH A 204-C1 CLEAR ANODIZE FINISH OR 145 GOLD ANODIZE FINISH. ALL FILLER INSERTS AND BOTTOM RAIL ADAPTERS BLACK ANODIZED.

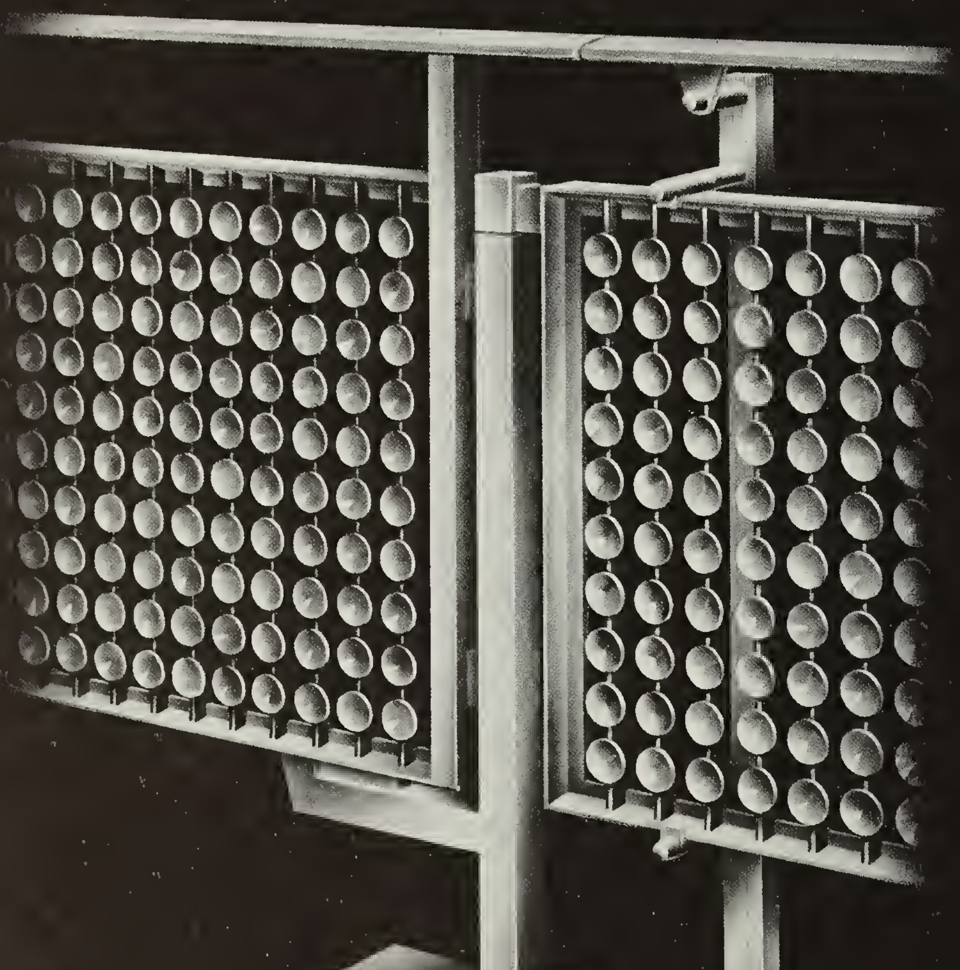
ADAPTABLE FOR BUTT HINGES, CONTINUOUS HINGES, OVERHEAD CLOSERS, FLOOR MOUNTED CLOSERS, SLIDING HARDWARE AND FIXED PANELS.

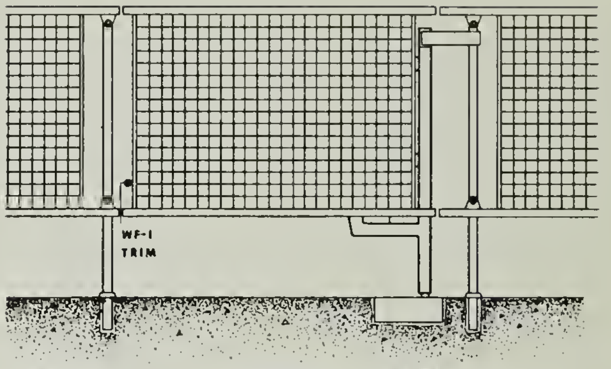
COMPLETE LOCKING ADAPTIONS AVAILABLE INCLUDING LOCKS FOR TOP AND BOTTOM RAILS, CENTER LOCKS AND ELECTRIC STRIKES.

*NOTE: BF-FACETS, REFER TO PAGE 118

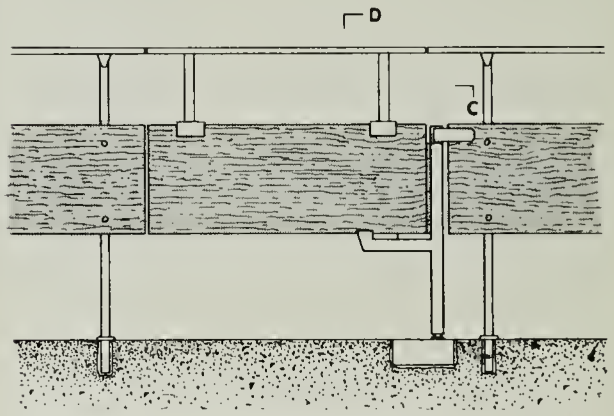
ALL BLUMCRAFT GRILLES AND PANELS APPLICABLE.
REFER TO PREVIOUS PAGES FOR STYLES AND DETAILS



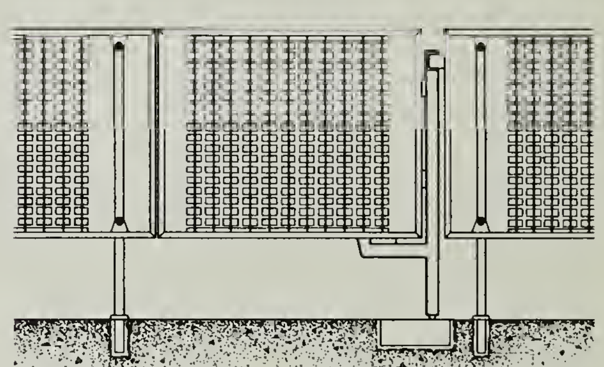




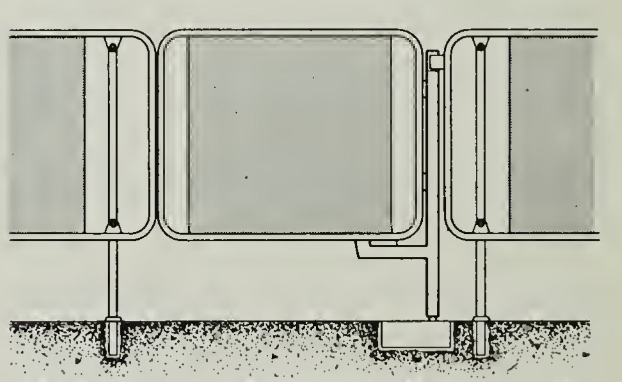
GATE POST GP-2 W/ RECESSED WIRE PANELS. FIG. 646



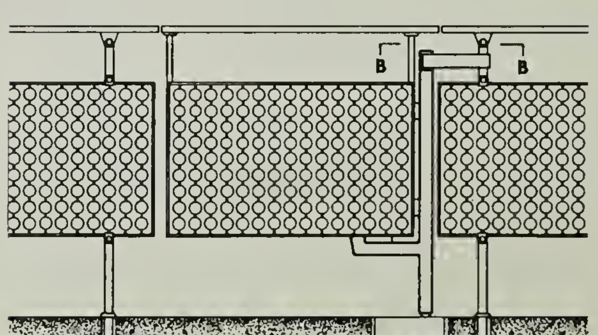
GATE POST GP-3 W/ FLOATING WOOD PLANK. FIG. 647



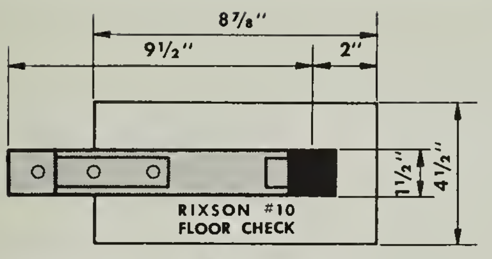
GATE POST GP-1 W/ RECESSED GRILL-O-METRICS. FIG. 648



GATE POST GP-1 W/ RECESSED GLASS PANELS FIG. 649

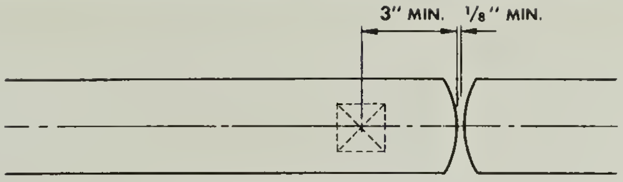


GATE POST GP-2 W/ FLOATING GRILL-O-METRICS. FIG. 652

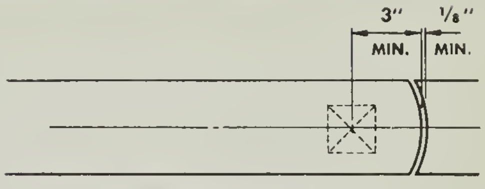

8⅞″
9½″
2″
1½″
4½″
RIXSON #10
FLOOR CHECK

SECTION A-A DOUBLE ACTING PIVOT.
FOR SINGLE ACTING APPLY STOP ON GATE

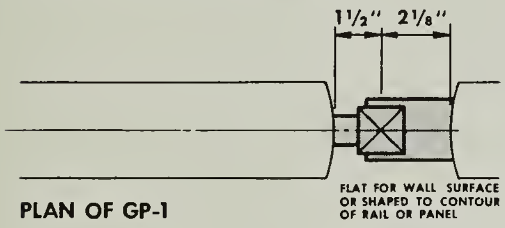
TYPICAL GP-1 GP-2 AND GP-3



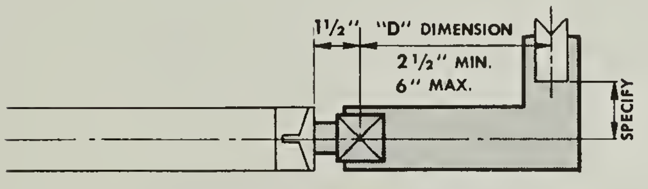
PLAN VIEW OF TOP RAIL



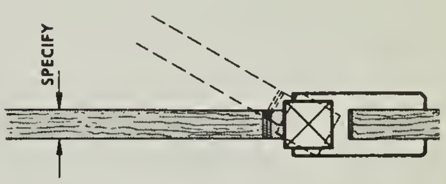
PLAN VIEW OF TOP RAIL


1½″
2⅛″
FLAT FOR WALL SURFACE OR SHAPED TO CONTOUR OF RAIL OR PANEL

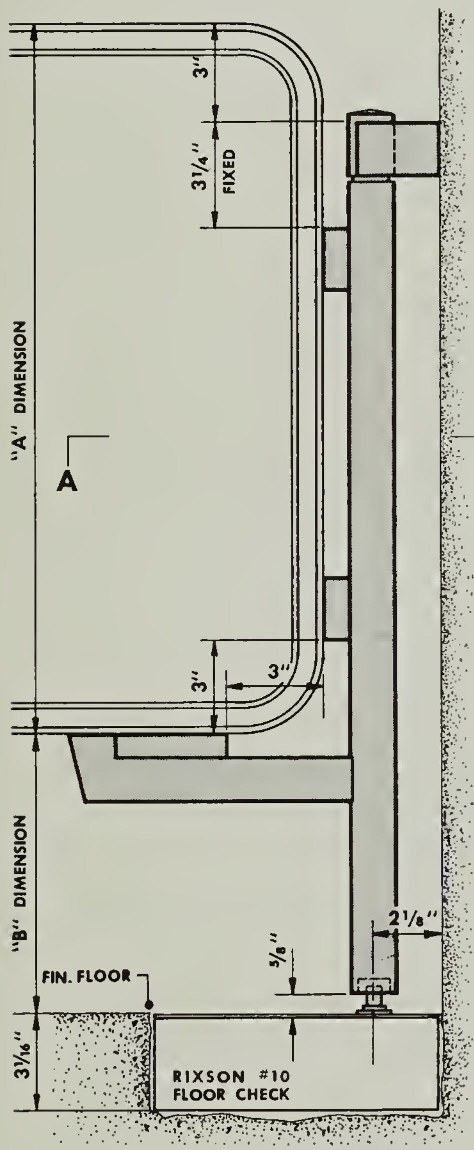
PLAN OF GP-1


1½″
"D" DIMENSION
2½″ MIN.
6″ MAX.
SPECIFY

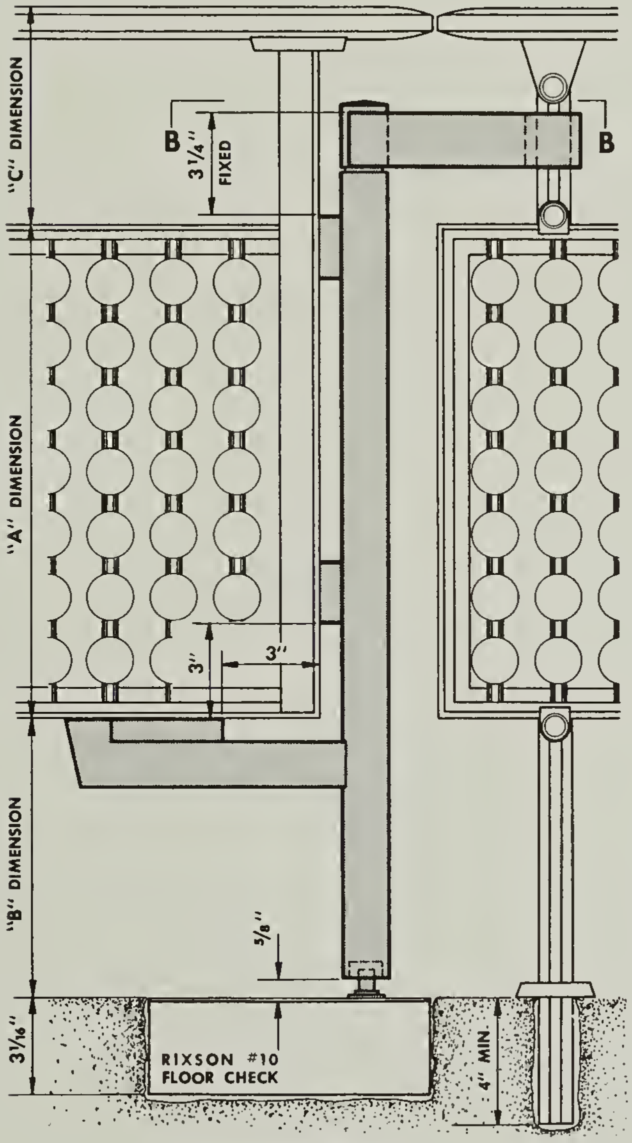
SECTION B-B GATE POST GP-2



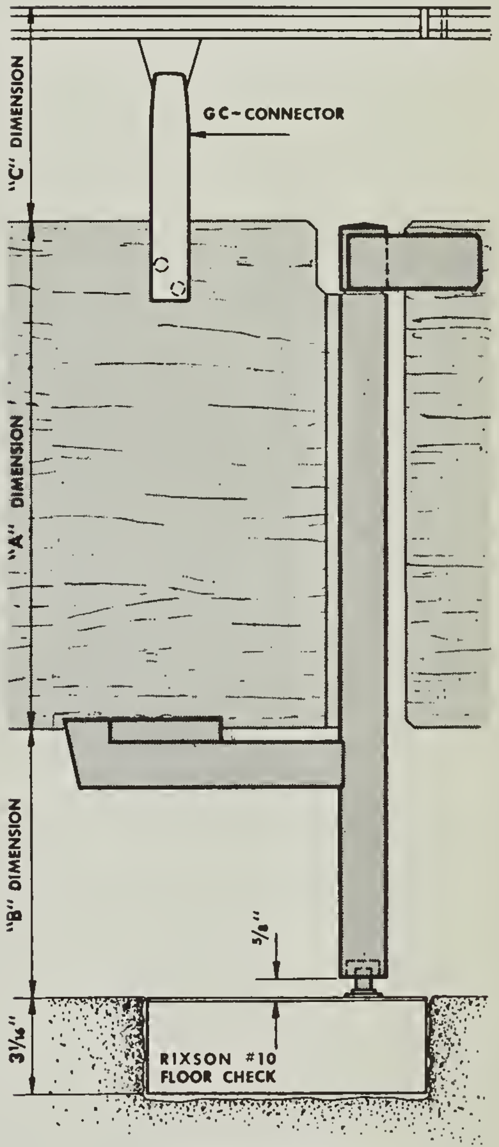
SECTION C


3″
3¼″
FIXED
"A" DIMENSION
A
A
3″
3″
"B" DIMENSION
2⅛″
⅝″
FIN. FLOOR
3⅟₁₆″
RIXSON #10
FLOOR CHECK

GATE POST GP-1

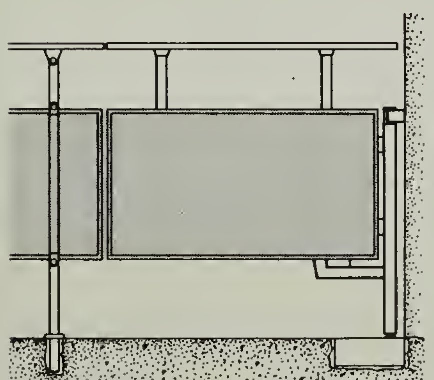

"C" DIMENSION
B
3¼″
FIXED
B
"A" DIMENSION
3″
3″
"B" DIMENSION
⅝″
3⅟₁₆″
RIXSON #10
FLOOR CHECK
4″ MIN.

GATE POST GP-2

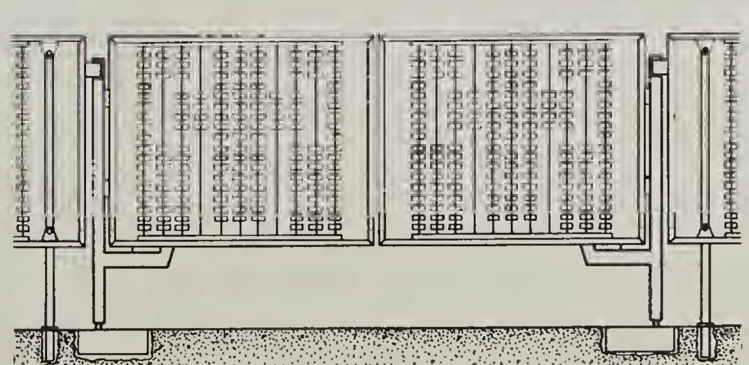

"C" DIMENSION
GC-CONNECTOR
"A" DIMENSION
"B" DIMENSION
⅝″
3⅟₁₆″
RIXSON #10
FLOOR CHECK

GATE POST GP-3

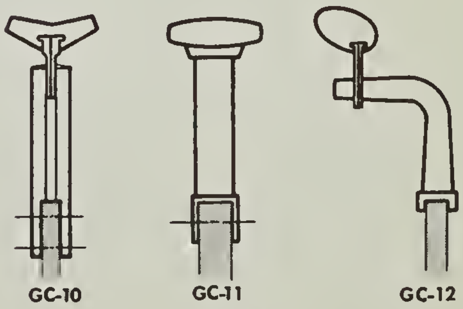
BLUMCRAFT DOES NOT BUILD GATE FRAMES BUT SUPPLIES GATE POSTS AND FLOOR CHECKS TO FABRICATORS DIMENSIONS . . . ALL BLUMCRAFT HANDRAILS APPLICABLE



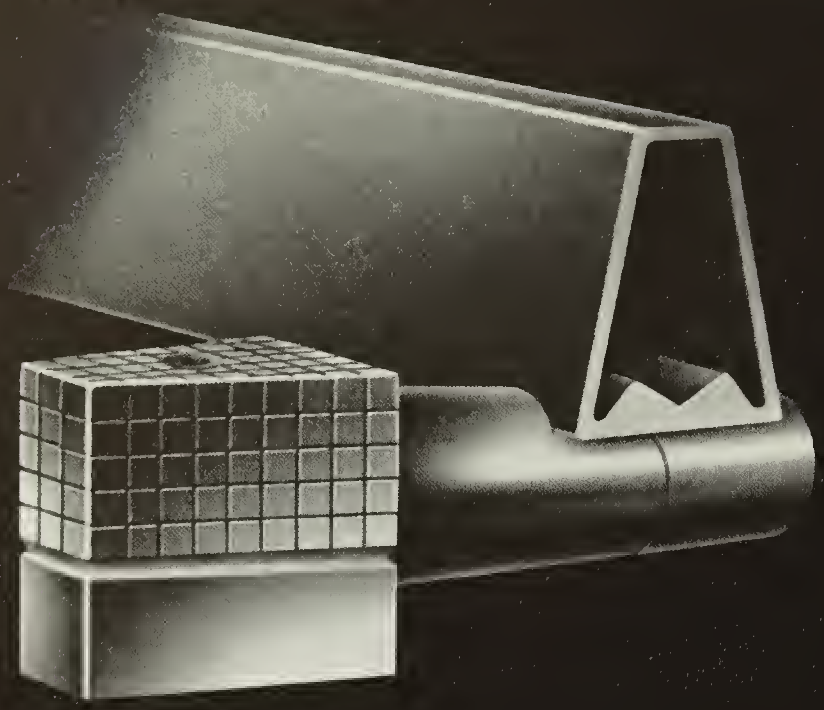
GATE POST GP-1 WITH FLOATING RAIL PANELS
GLASS, WOOD OR PLASTIC FIG. 650

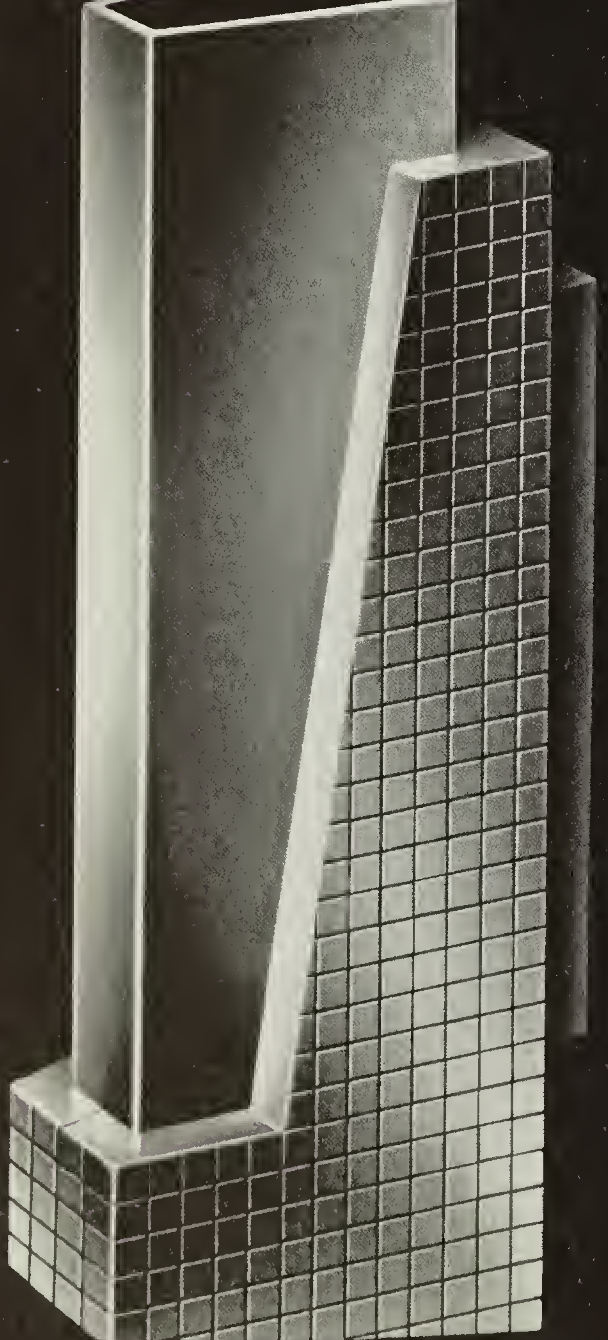


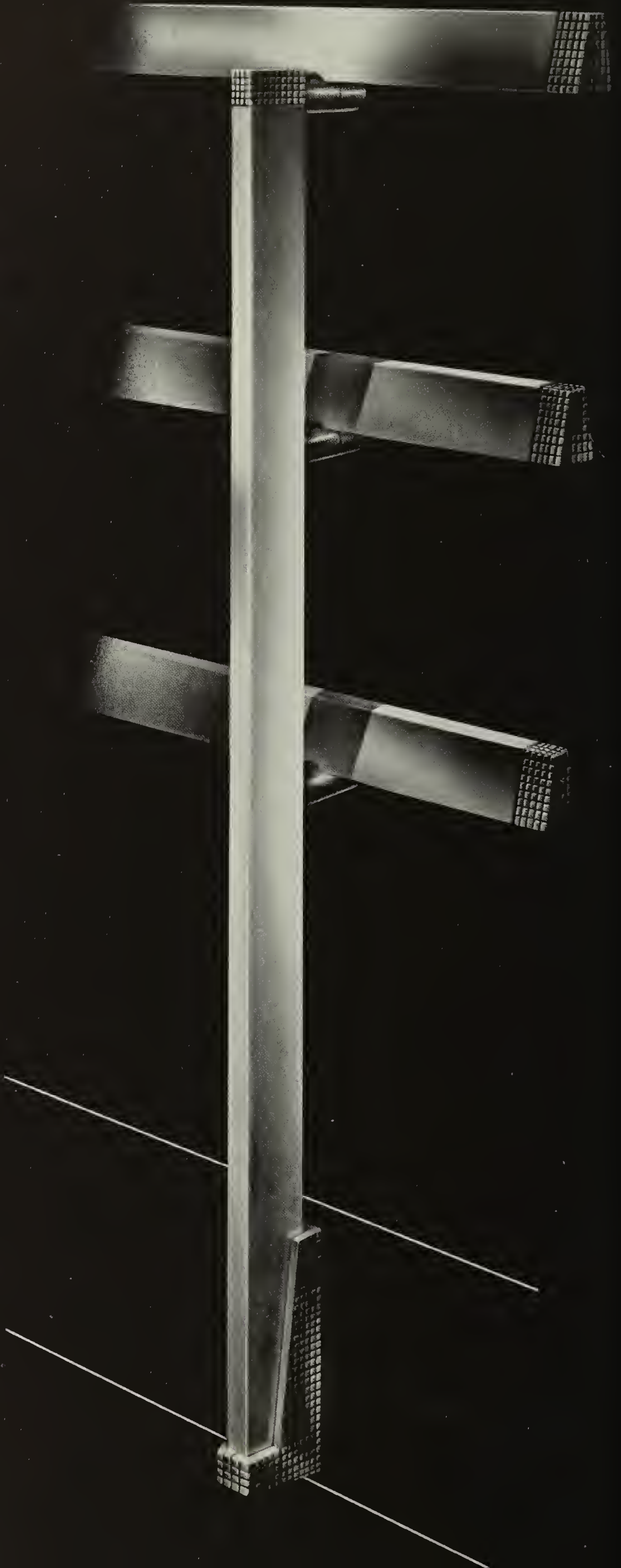
DOUBLE GATE WITH POSTS GP-1 GRILL-O-METRICS AVAILABLE TO
ARCHITECT'S PATTERN ARRANGEMENTS. FIG. 651


GC-10
GC-11
GC-12

SECTION D

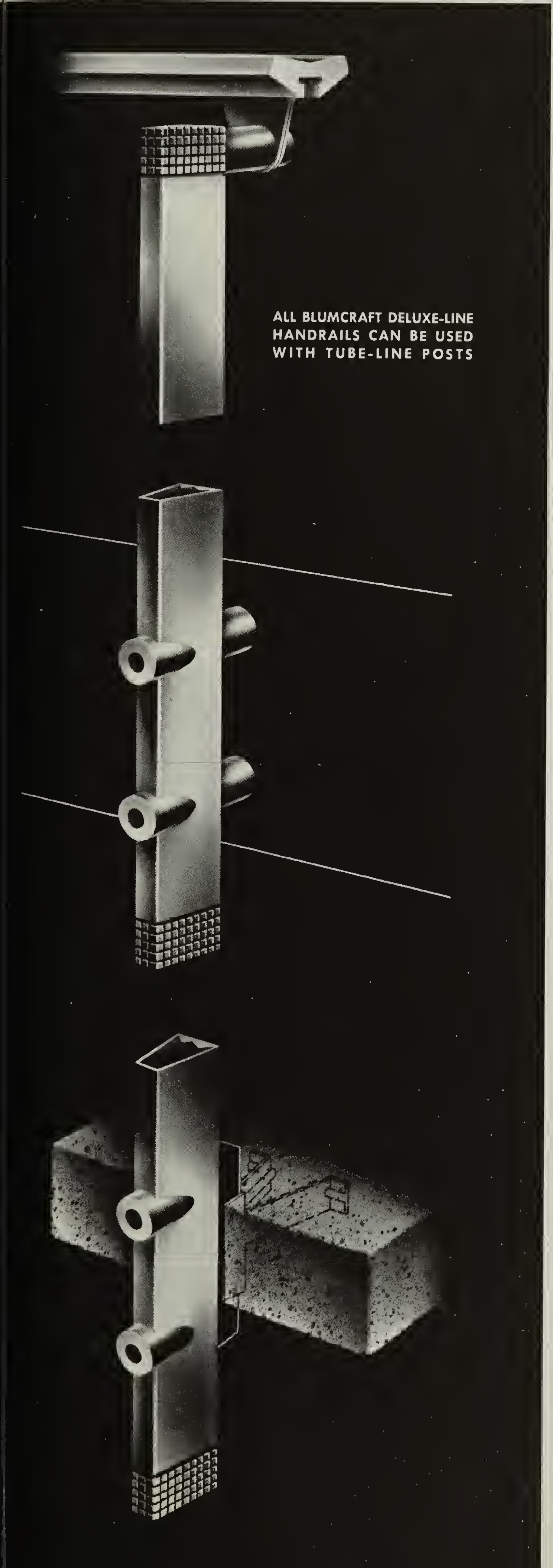




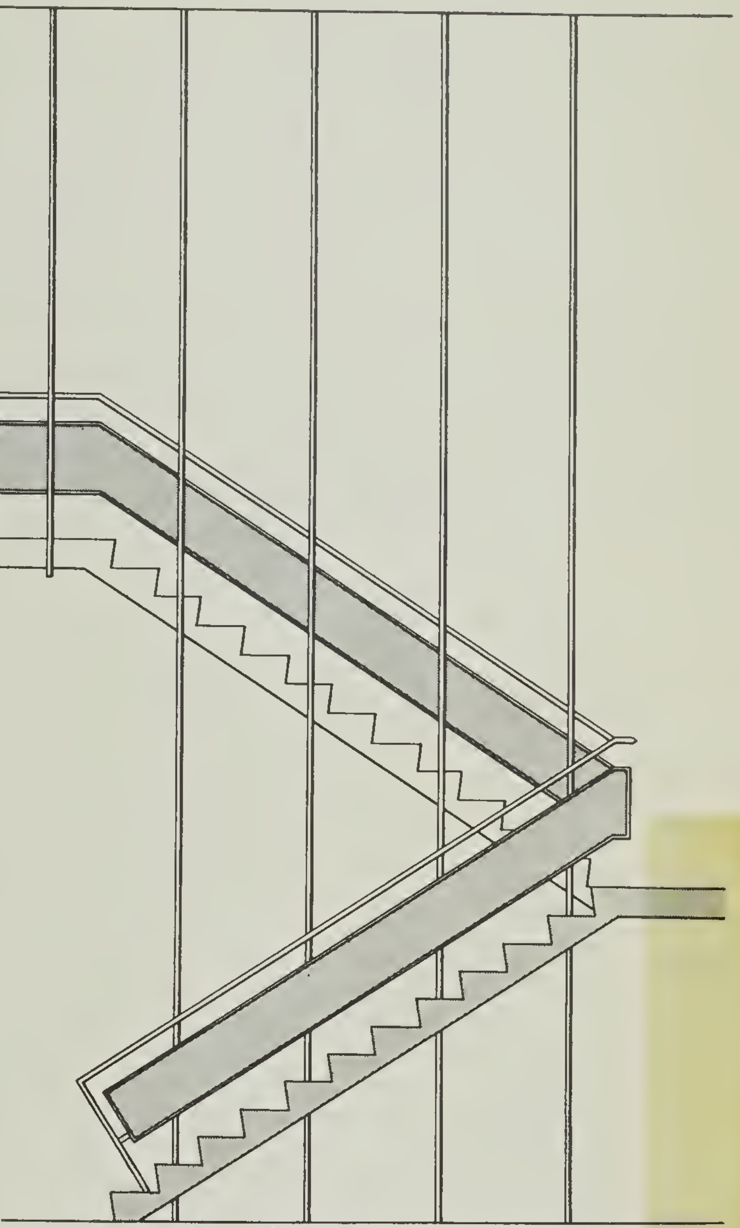


BLUMCRAFT'S ORIGINAL DESIGNS AND STRUCTURES ARE FULLY COVERED BY PATENTS AND PENDING PATENT APPLICATIONS IN THE UNITED STATES AND CANADA.

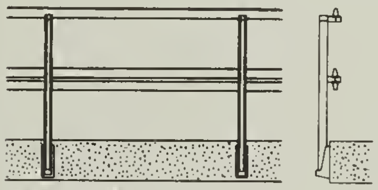
LOW-COST RAILING



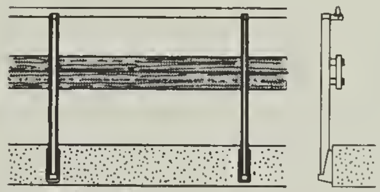
ALL BLUMCRAFT DELUXE-LINE HANDRAILS CAN BE USED WITH TUBE-LINE POSTS



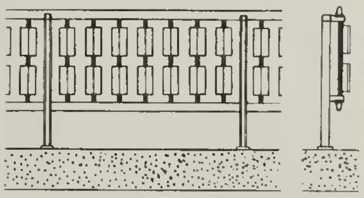
TUBE-LINE POST FLOOR TO CEILING WITH GLASS PANELS
FIG. 591



DOUBLE INTERMEDIATE RAIL

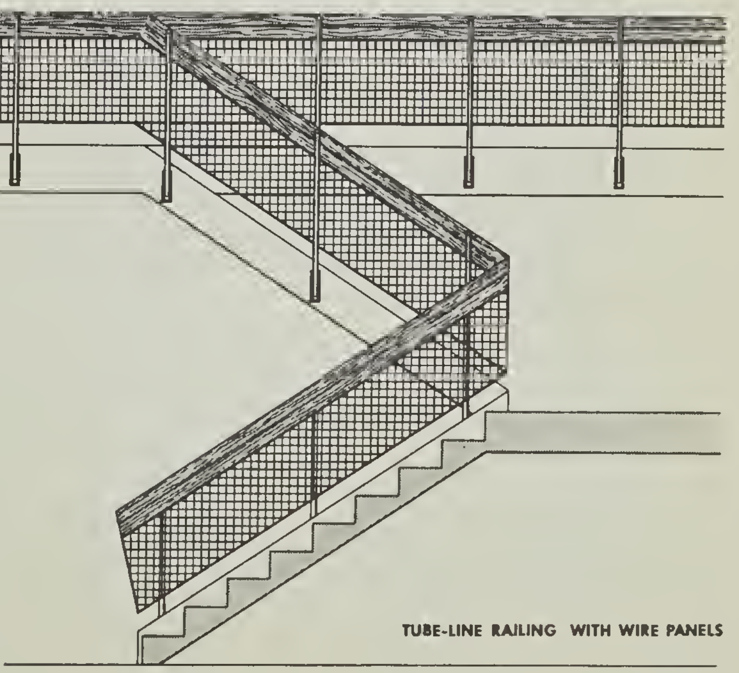


WOOD-PANEL RAIL



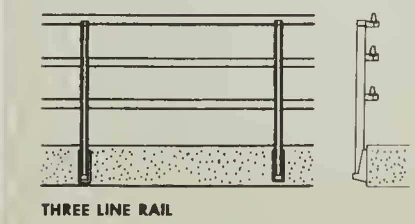
GRILL-O-METRIC PANELS

DETAILS

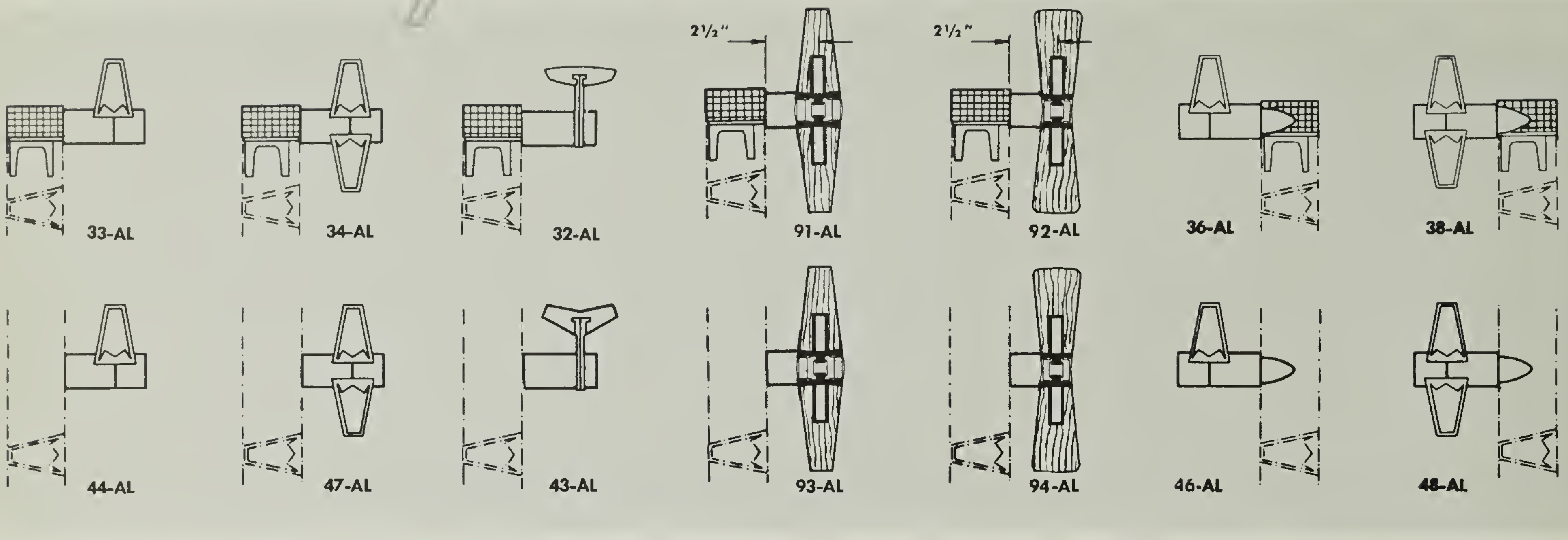


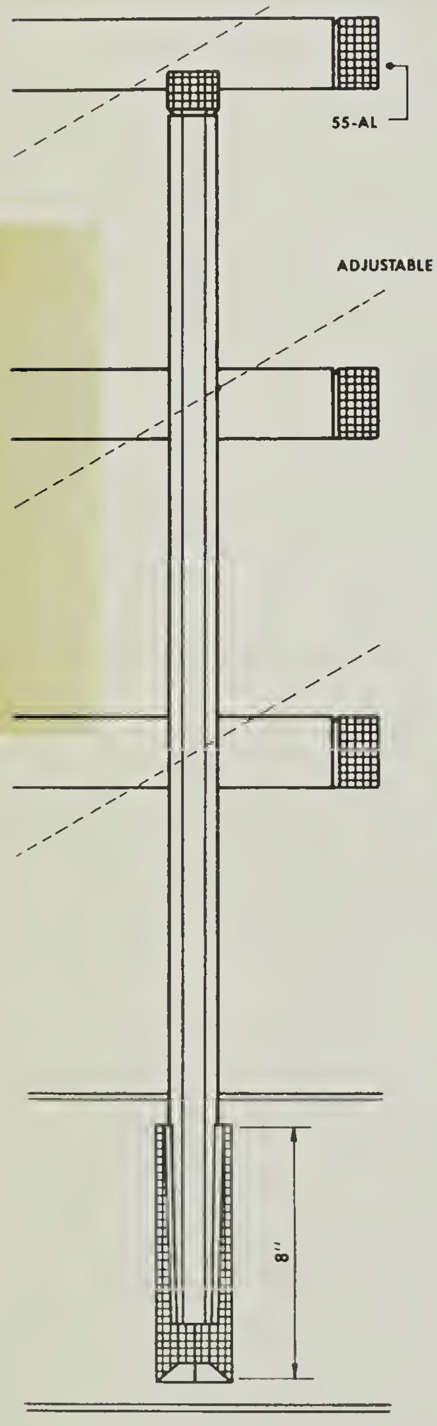
TUBE-LINE RAILING WITH WIRE PANELS

FIG. 592

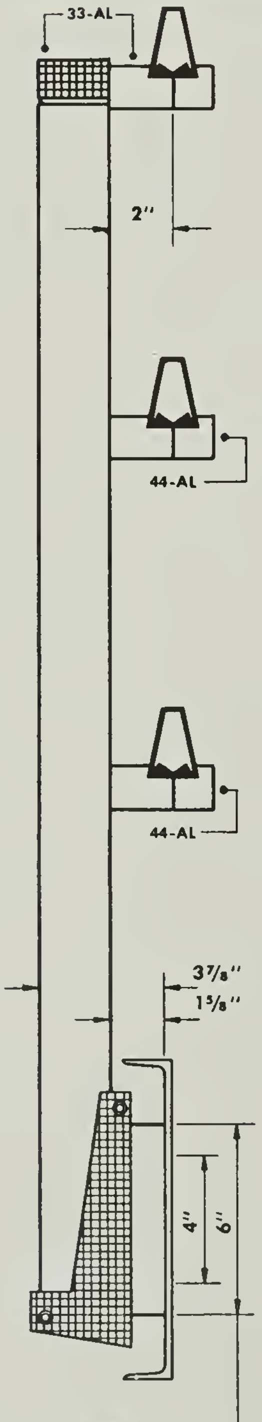


THREE LINE RAIL

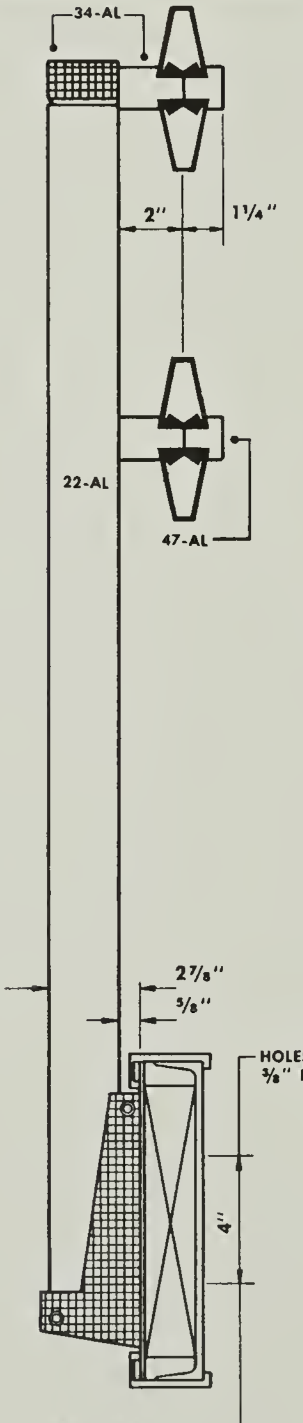

2½"
2½"
33-AL
34-AL
32-AL
91-AL
92-AL
36-AL
38-AL
44-AL
47-AL
43-AL
93-AL
94-AL
46-AL
48-AL


55-AL
ADJUSTABLE
8"

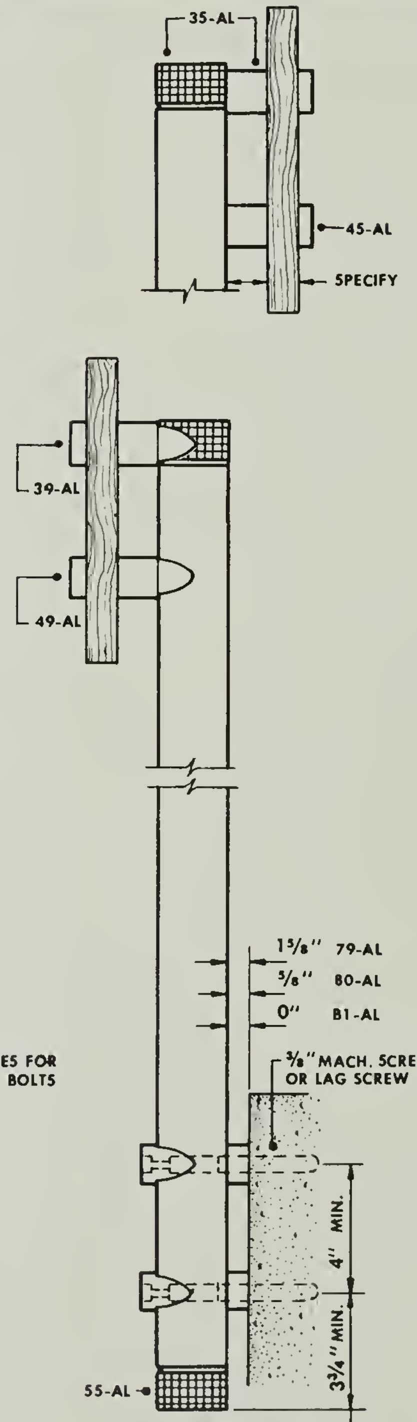
SIDE ELEVATION


33-AL
2"
44-AL
44-AL
3⅞"
1⅝"
4"
6"

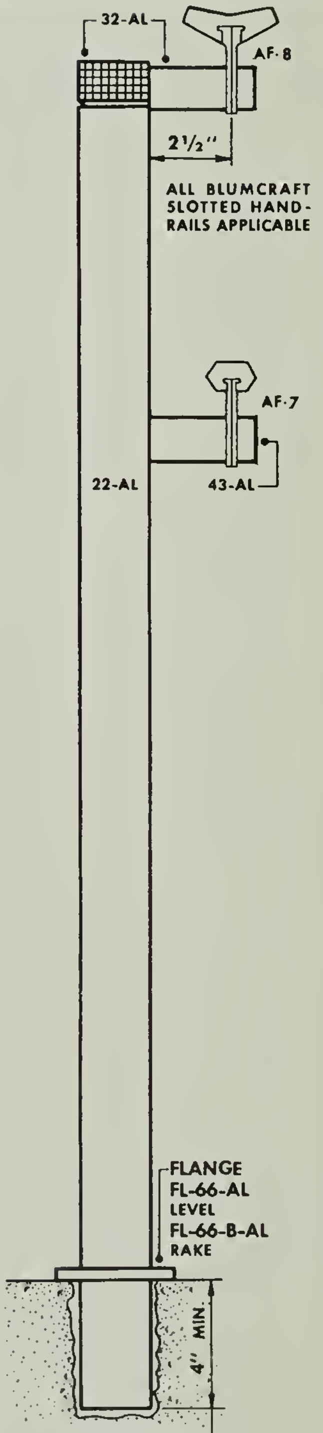
77-AL BRACKET


34-AL
2"
1¼"
22-AL
47-AL
2⅞"
⅝"
HOLES FOR ⅜" BOLTS
4"

78-AL BRACKET

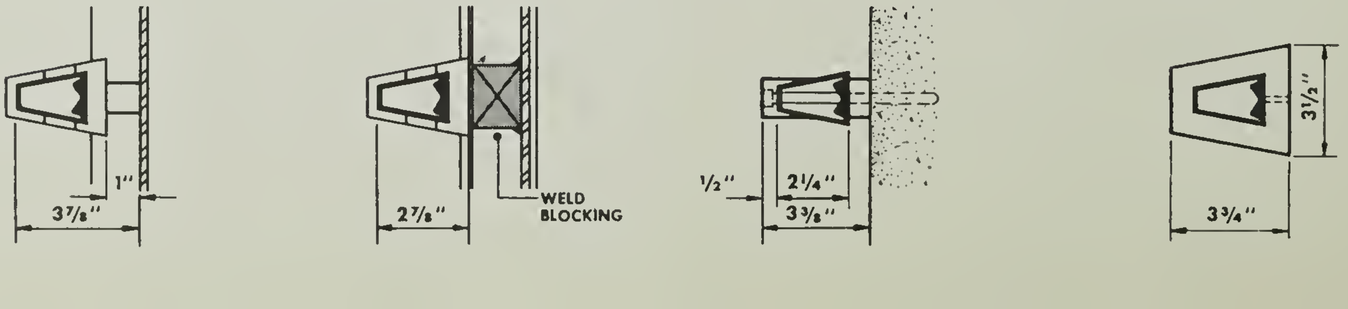

35-AL
45-AL
SPECIFY
39-AL
49-AL
1⅝" 79-AL
⅝" 80-AL
0" 81-AL
⅜" MACH. SCREW OR LAG SCREW
4" MIN.
3¾" MIN.
55-AL

80-AL BRACKET

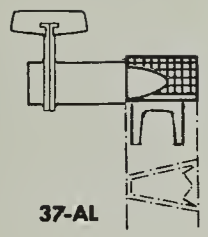

32-AL
AF-8
2½"
ALL BLUMCRAFT SLOTTED HAND-RAILS APPLICABLE
AF-7
22-AL
43-AL
FLANGE FL-66-AL LEVEL FL-66-B-AL RAKE
4" MIN.

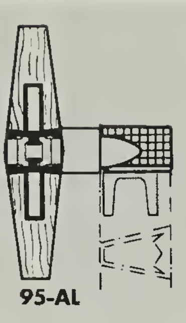
GROUTED POST

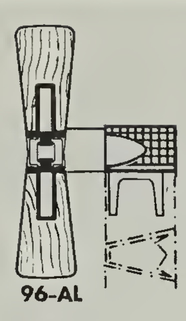
ALTERNATE MOUNTINGS
SCALE 1½" = 1'-0"

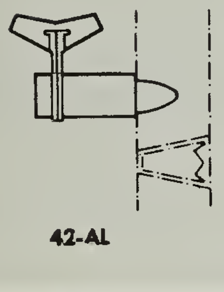

1"
3⅞"
2⅞"
WELD BLOCKING
½"
2¼"
3⅜"
3½"
3¾"

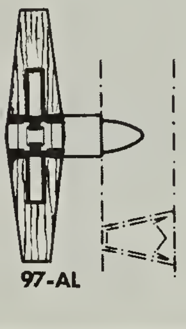
LOW-COST RAILING

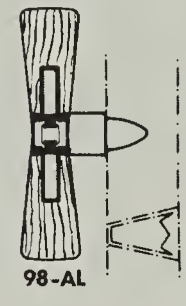


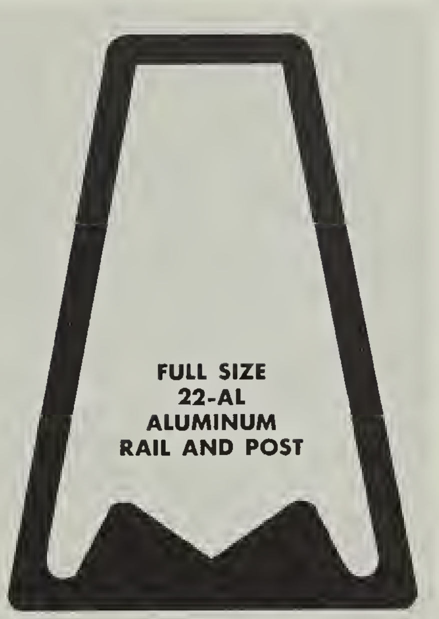











FULL SIZE
22-AL
ALUMINUM
RAIL AND POST

POST SPACING — NOT TO EXCEED 5'-0" AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 5'-0" FOR LEVEL RAILING. WHEN BLUMCRAFT DELUXE LINE SLOTTED HANDRAILS ARE USED, MAXIMUM POST SPACING IS 4'-0", EXCEPT FOR HANDRAIL NO. 114 WHICH IS NOT TO EXCEED 2'-0".

STARTING POSTS — INCLUDING THOSE WITH SIDE MOUNTED BRACKETS, SHOULD EXTEND INTO FLOOR FOR ADDED RIGIDITY.

BOXED METAL STRINGERS — SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

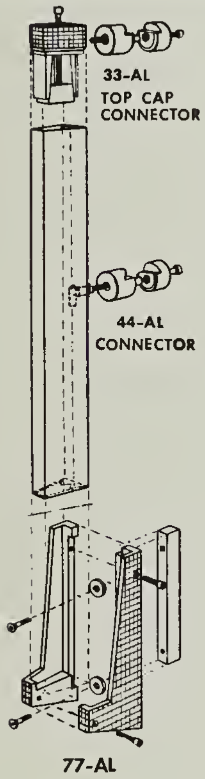
CONCRETE STAIRS — USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE.

RIGIDITY — THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

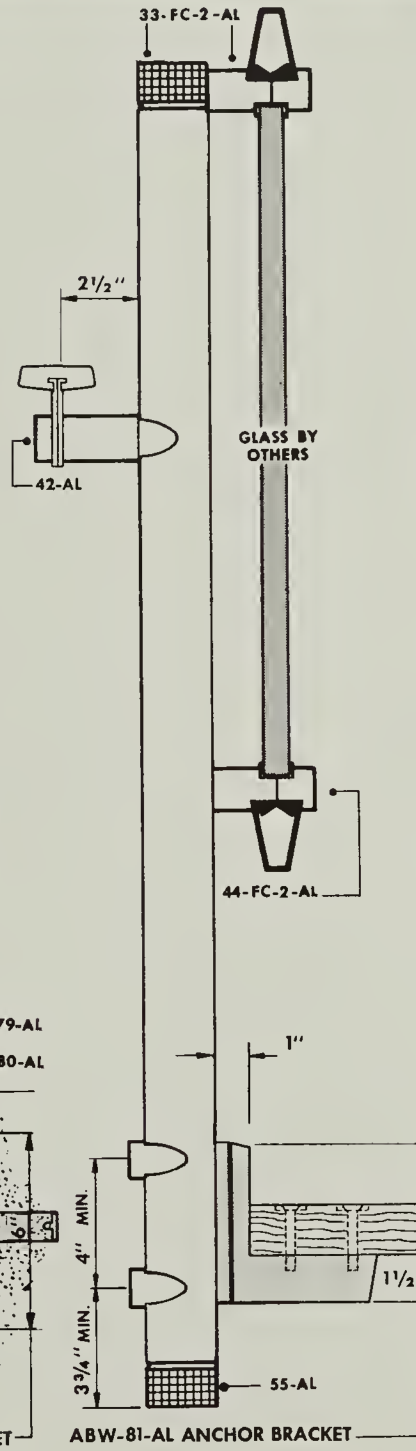
FABRICATION — LOCAL FABRICATOR BUILDS THE COMPLETE RAILING, AND IS RESPONSIBLE FOR THE ASSEMBLY, THE RIGIDITY AND THE FINAL FINISHED APPEARANCE OF THE INSTALLATION.

FINISH — THE 22-AL TUBELINE BAR FOR HANDRAILS AND POST IS FURNISHED TO THE FABRICATOR IN A MILL FINISH. THE FITTINGS ARE FURNISHED IN A PRELIMINARY FINISH. LOCAL FABRICATOR APPLIES FINAL FINISH AS SPECIFIED.

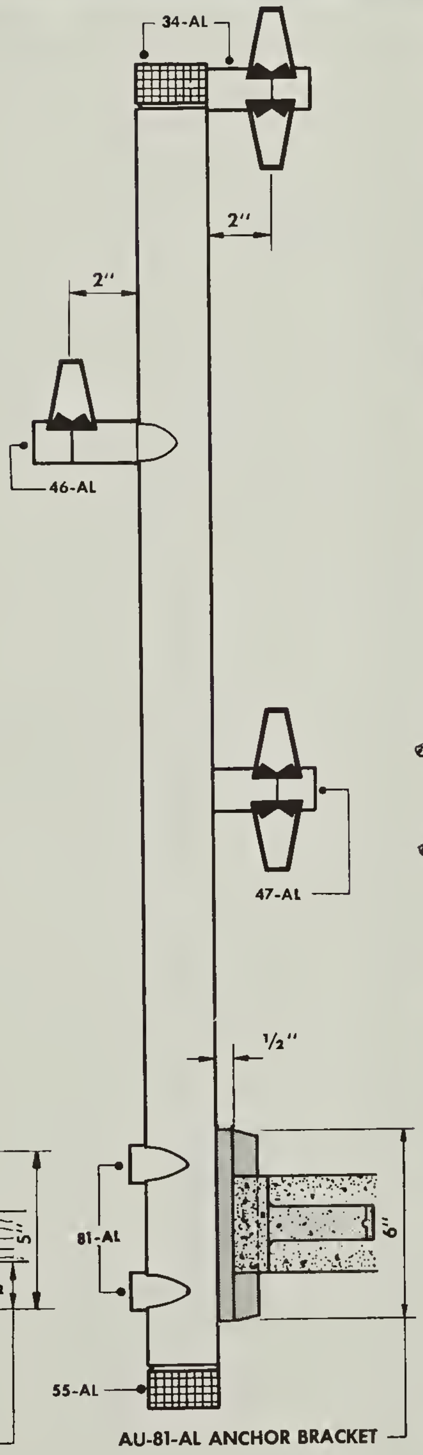
SERVICE TO ARCHITECT — OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.


33-AL
TOP CAP
CONNECTOR
44-AL
CONNECTOR
77-AL

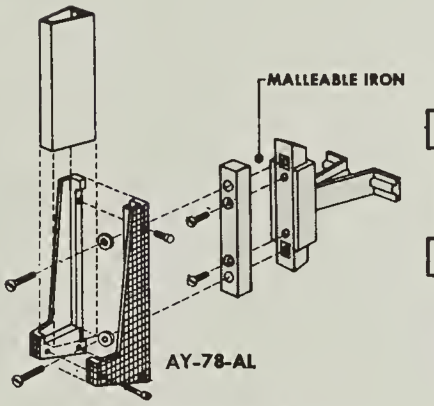
ASSEMBLY OF POST AND BRACKETS


33-FC-2-AL
2½"
42-AL
GLASS BY OTHERS
44-FC-2-AL
1"
4" MIN.
3¾" MIN.
5"
1½
55-AL

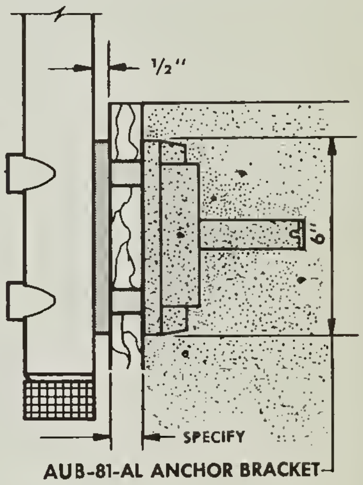
ABW-81-AL ANCHOR BRACKET


34-AL
2"
2"
46-AL
47-AL
½"
81-AL
6"
55-AL

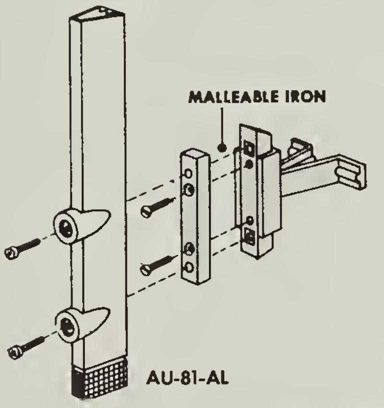
AU-81-AL ANCHOR BRACKET


MALLEABLE IRON
AY-78-AL

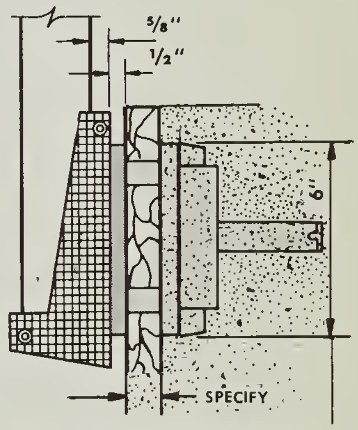
AY-ANCHOR BRACKET



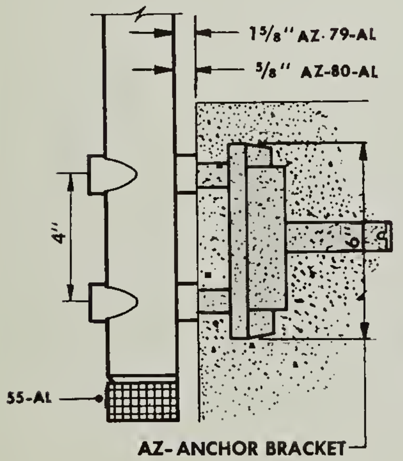
AUB-81-AL ANCHOR BRACKET


MALLEABLE IRON
AU-81-AL

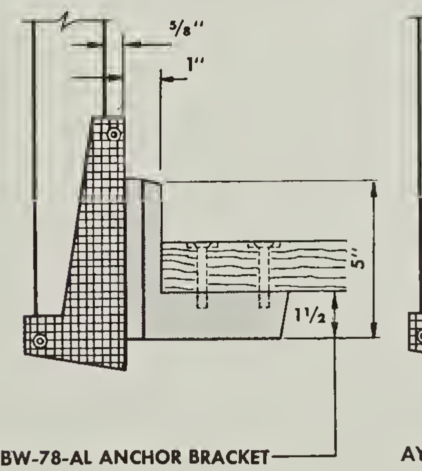
AU-ANCHOR BRACKET


⅝"
½"
6"
SPECIFY

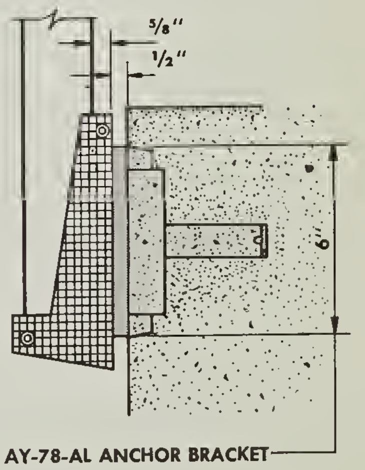
AYB-78-AL ANCHOR BRACKETS


1⅝" AZ-79-AL
⅝" AZ-80-AL
4"
55-AL

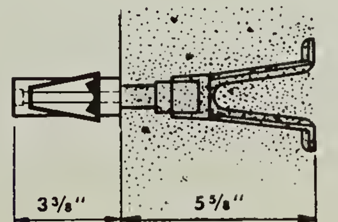
AZ-ANCHOR BRACKET

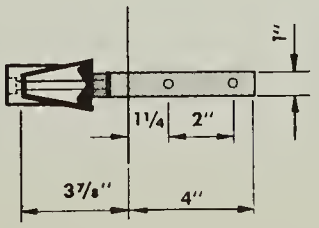


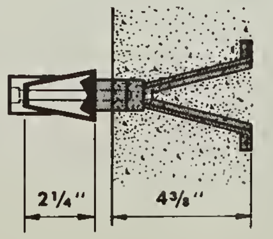
ABW-78-AL ANCHOR BRACKET

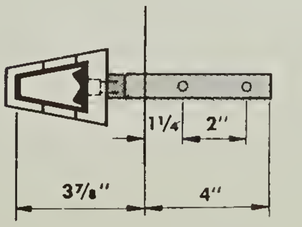


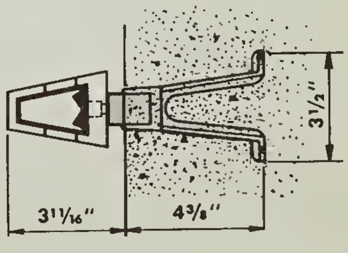
AY-78-AL ANCHOR BRACKET

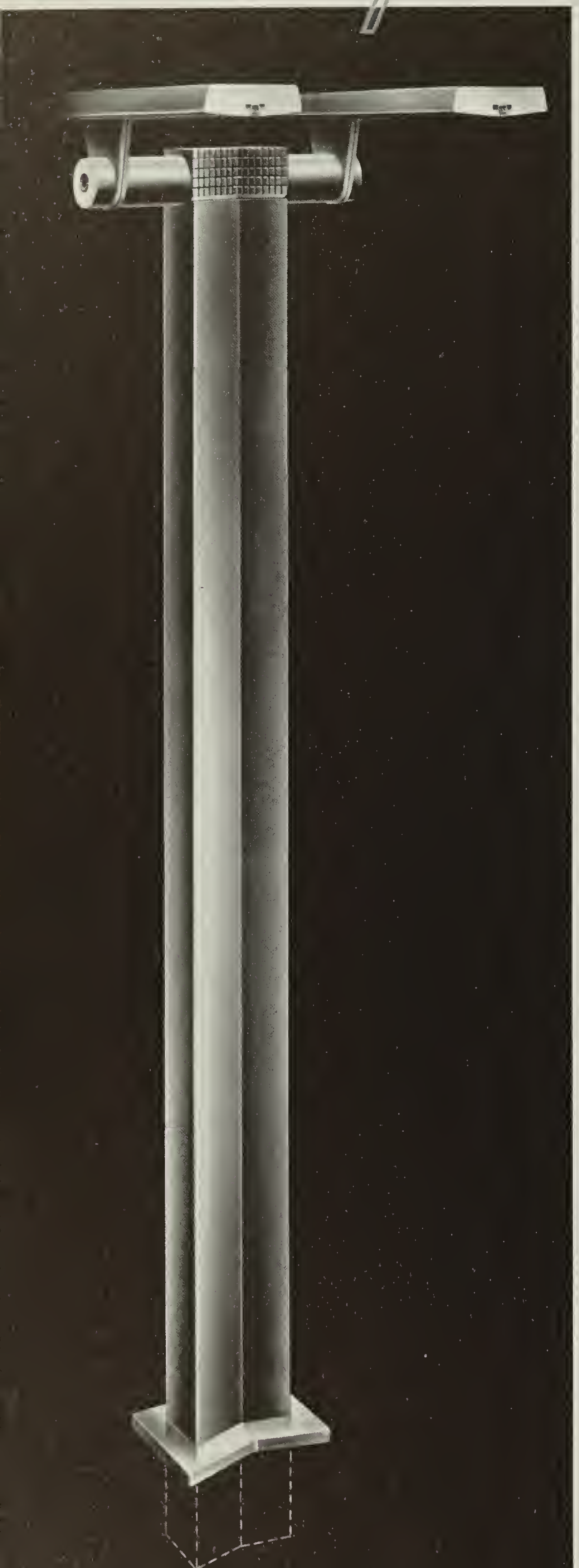


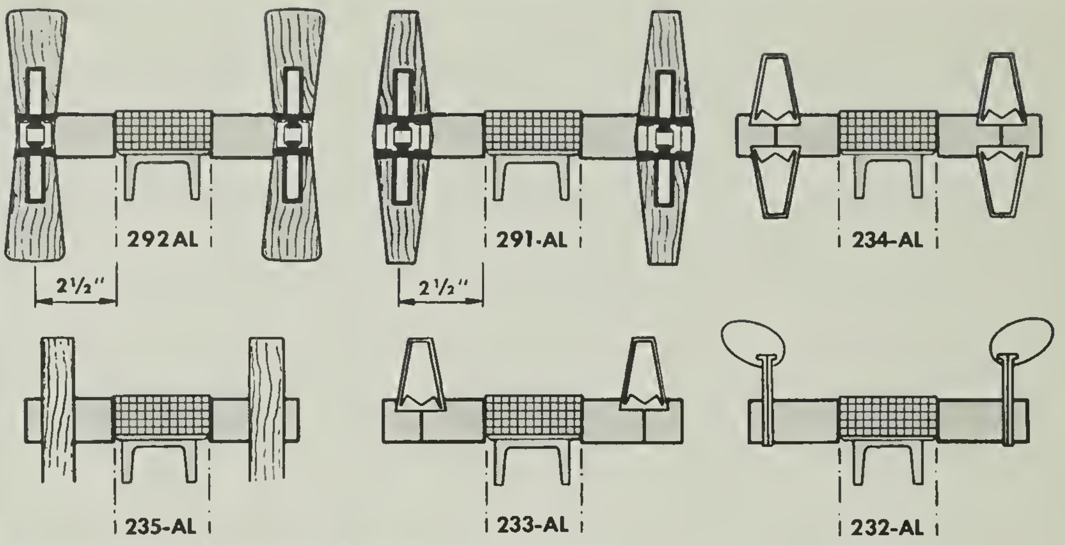




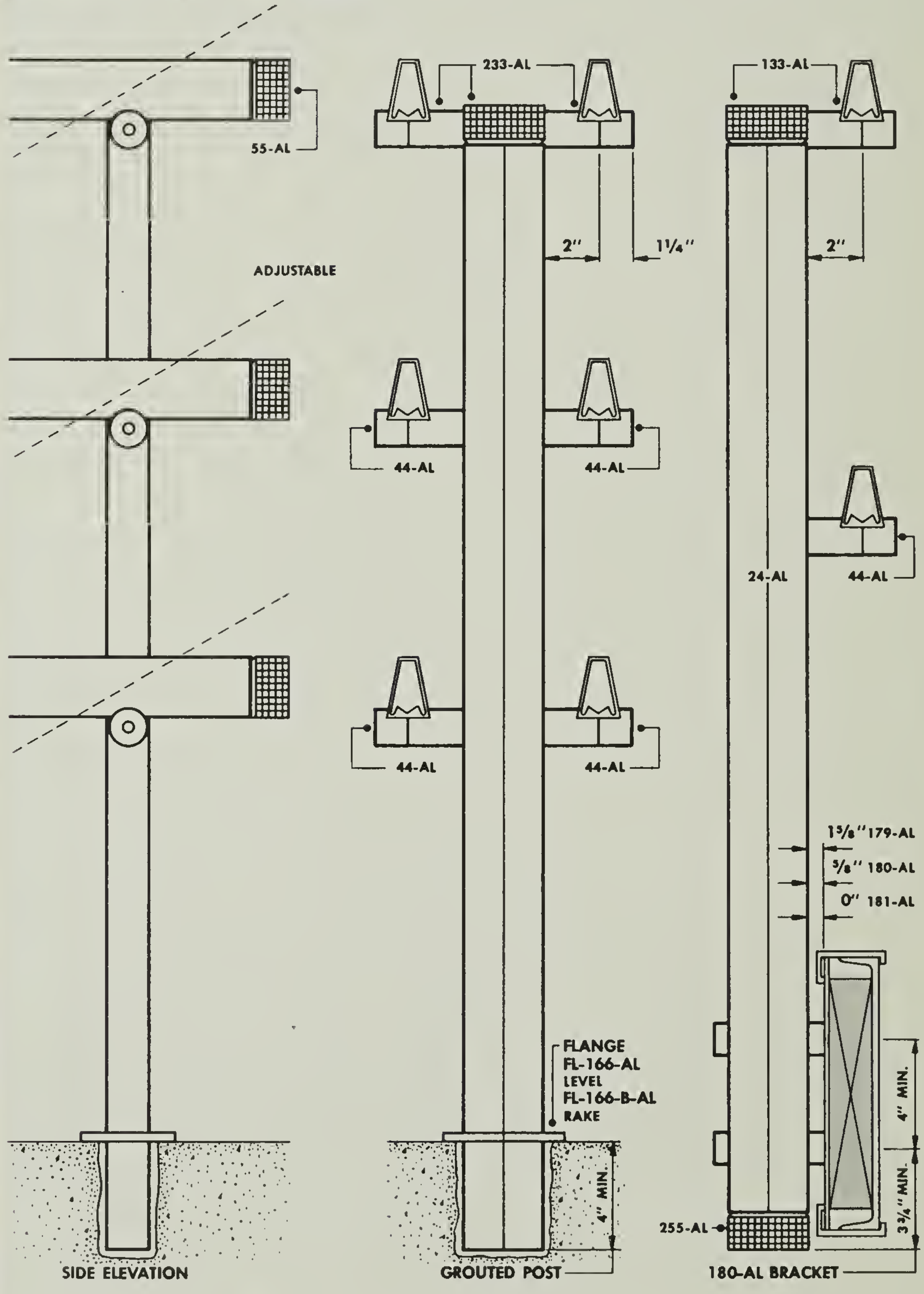




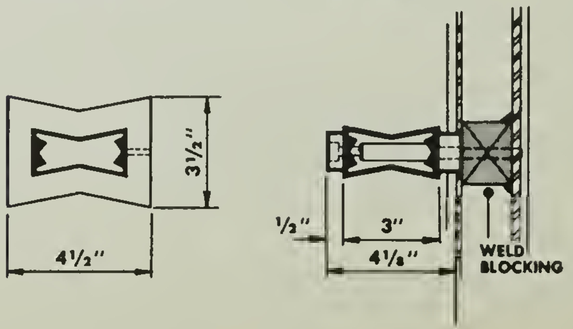


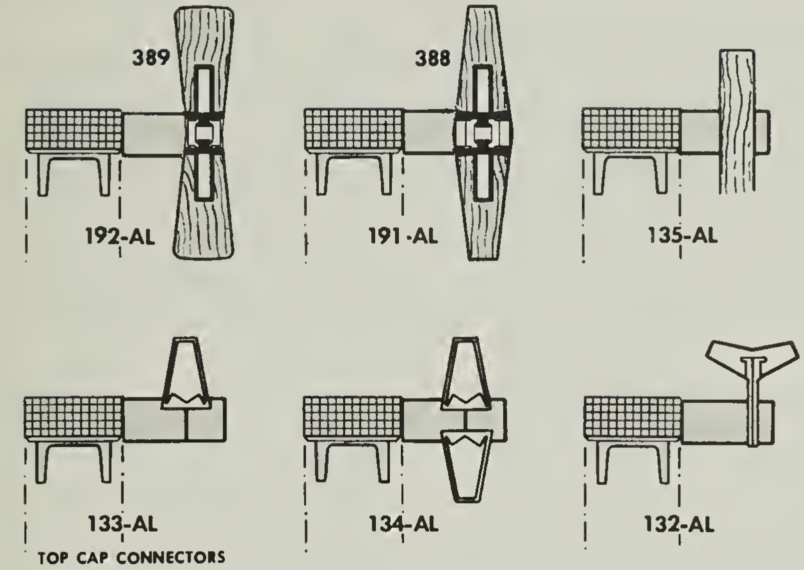

2½"
292AL
2½"
291-AL
234-AL
235-AL
233-AL
232-AL

ALL DELUXE-LINE HANDRAILS APPLICABLE.

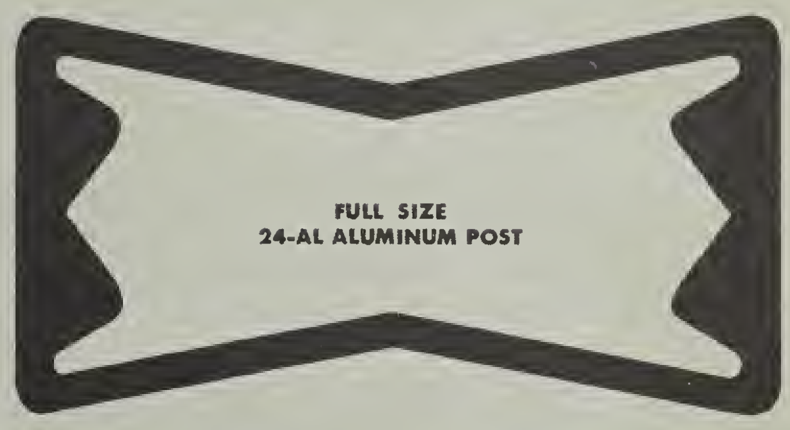

55-AL
ADJUSTABLE
233-AL
2"
1¼"
44-AL
44-AL
44-AL
44-AL
FLANGE
FL-166-AL
LEVEL
FL-166-B-AL
RAKE
4" MIN.
133-AL
2"
24-AL
44-AL
1⅝" 179-AL
⅝" 180-AL
0" 181-AL
4" MIN.
3¾" MIN.
255-AL
SIDE ELEVATION
GROUTED POST
180-AL BRACKET

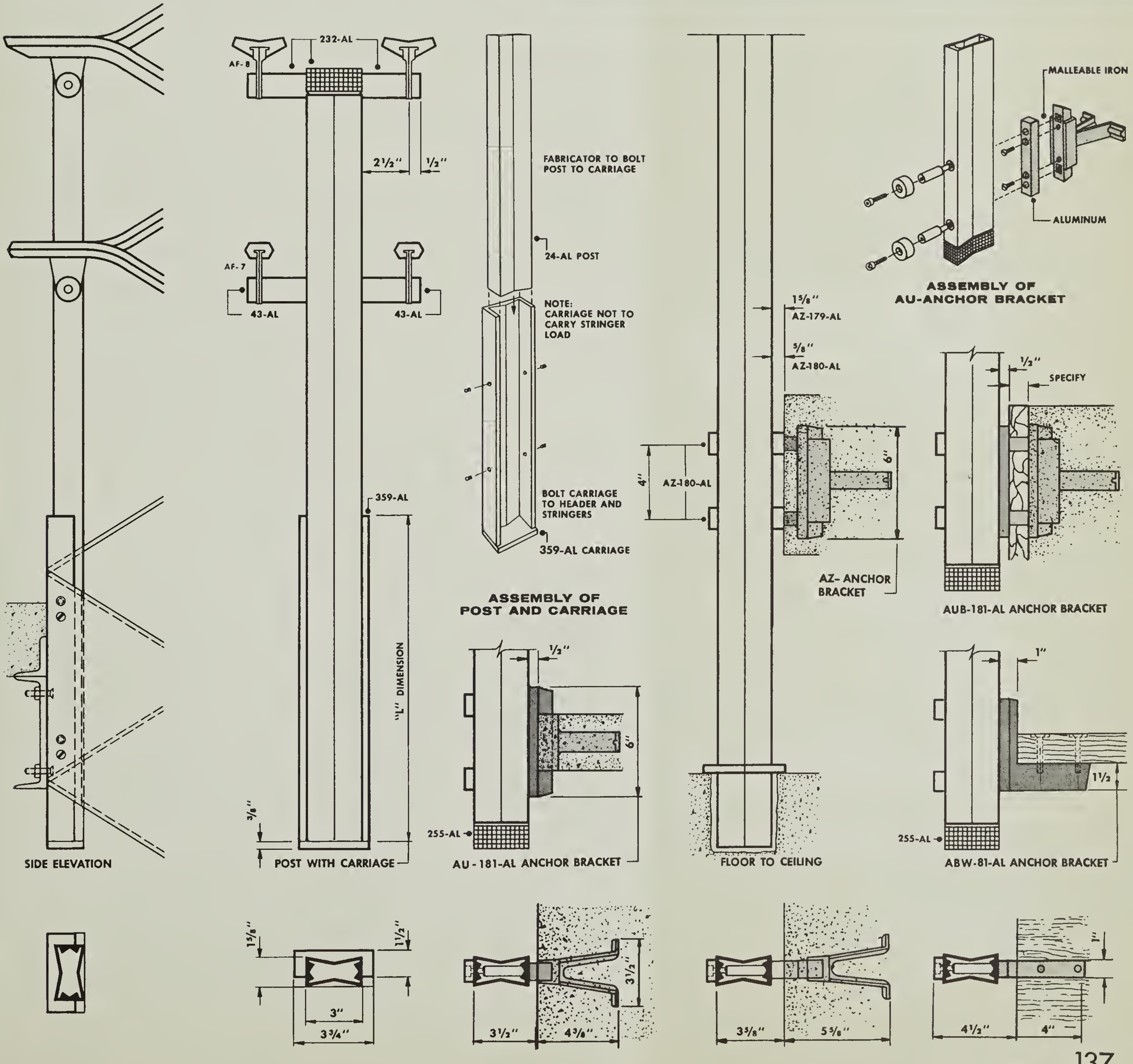
ALTERNATE MOUNTINGS
SCALE 1½" = 1'-0"


3½"
4½"
½"
3"
4⅛"
WELD
BLOCKING


389
388
192-AL
191-AL
135-AL
133-AL
134-AL
132-AL

TOP CAP CONNECTORS


FULL SIZE
24-AL ALUMINUM POST


232-AL
AF-8
2½"
½"
AF-7
43-AL
43-AL
359-AL
"L" DIMENSION
⅜"
FABRICATOR TO BOLT POST TO CARRIAGE
24-AL POST
NOTE: CARRIAGE NOT TO CARRY STRINGER LOAD
BOLT CARRIAGE TO HEADER AND STRINGERS
359-AL CARRIAGE
½"
6"
255-AL
1⅝"
AZ-179-AL
⅝"
AZ-180-AL
4"
AZ-180-AL
6"
AZ- ANCHOR BRACKET
MALLEABLE IRON
ALUMINUM
½"
SPECIFY
1"
1½
255-AL
1⅝"
1½"
3"
3¾"
3½"
3½"
4⅜"
3⅝"
5⅝"
1"
4½"
4"

SIDE ELEVATION

POST WITH CARRIAGE

ASSEMBLY OF POST AND CARRIAGE

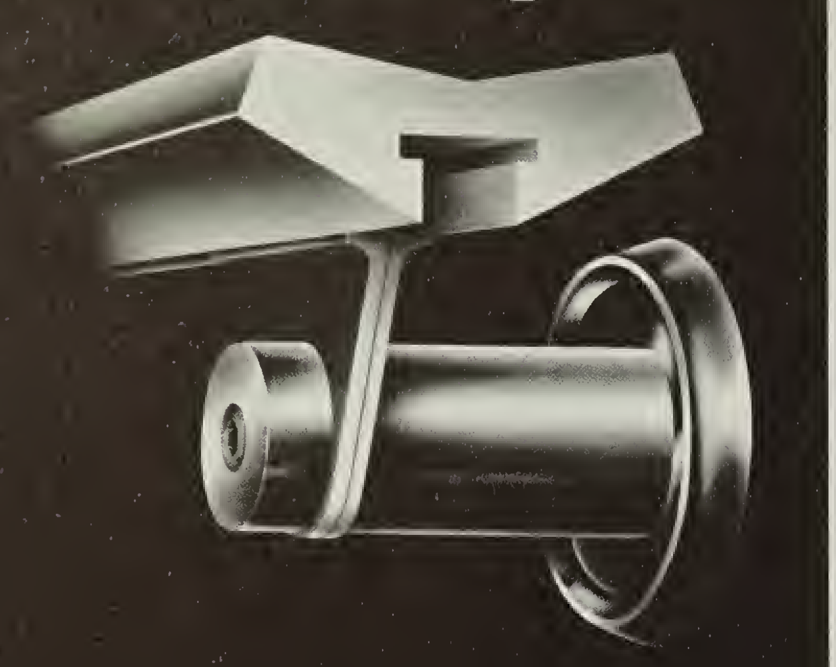
AU - 181-AL ANCHOR BRACKET

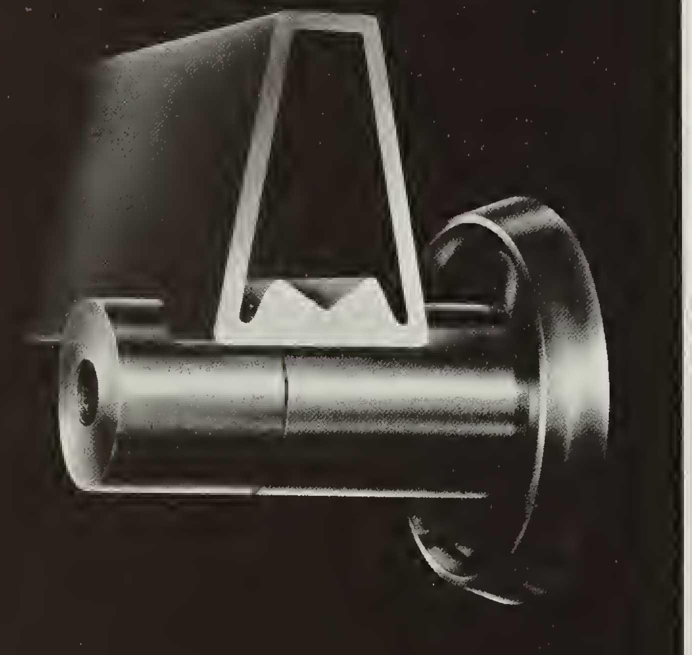
FLOOR TO CEILING

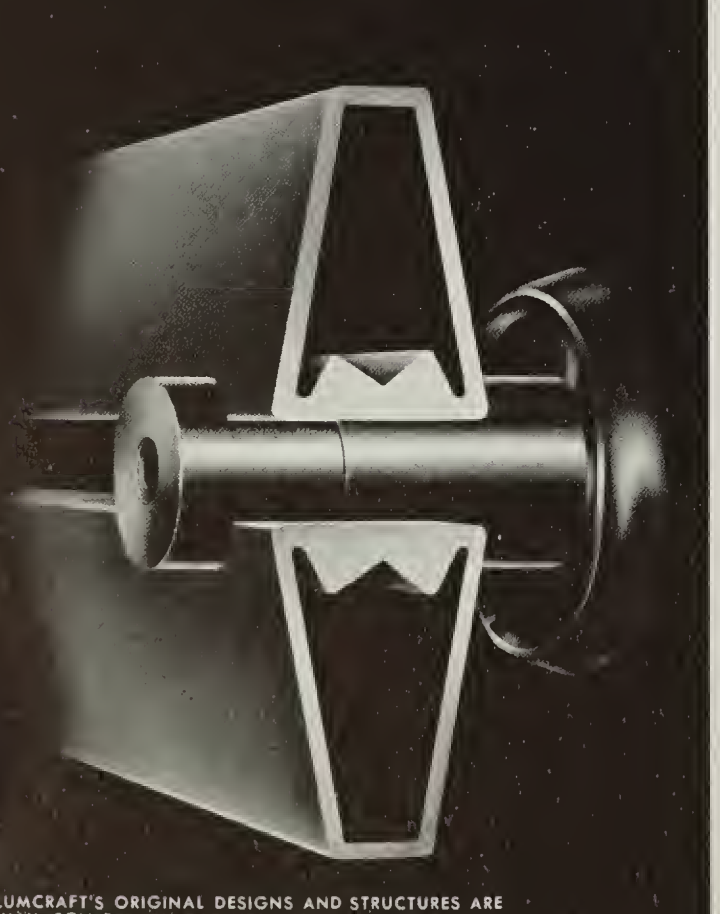
ASSEMBLY OF AU-ANCHOR BRACKET

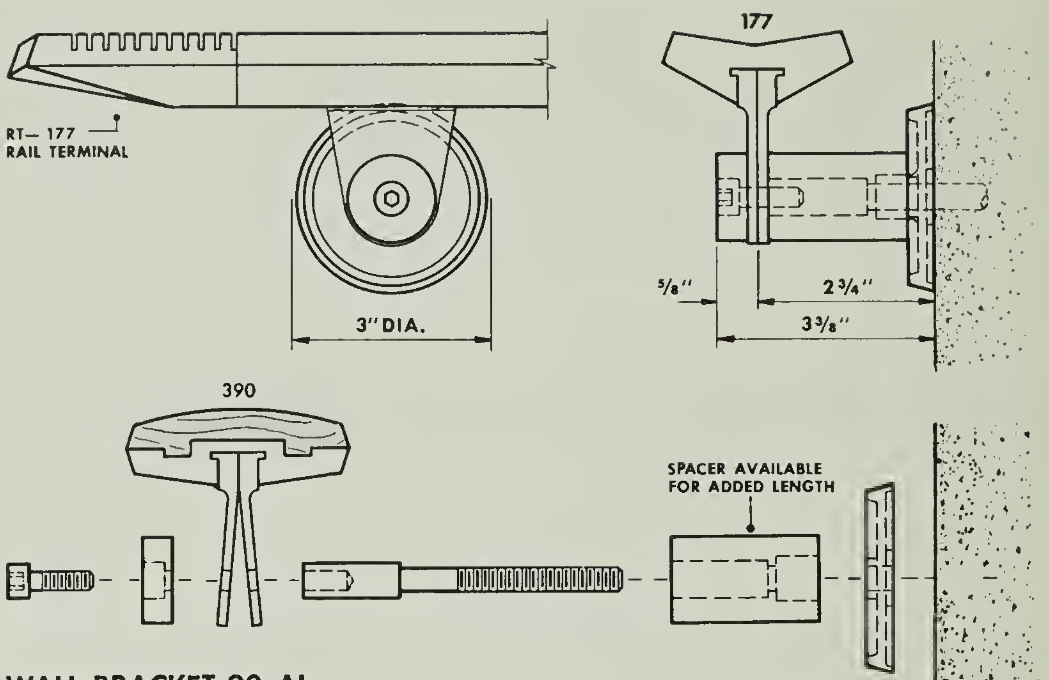
AUB-181-AL ANCHOR BRACKET

ABW-81-AL ANCHOR BRACKET

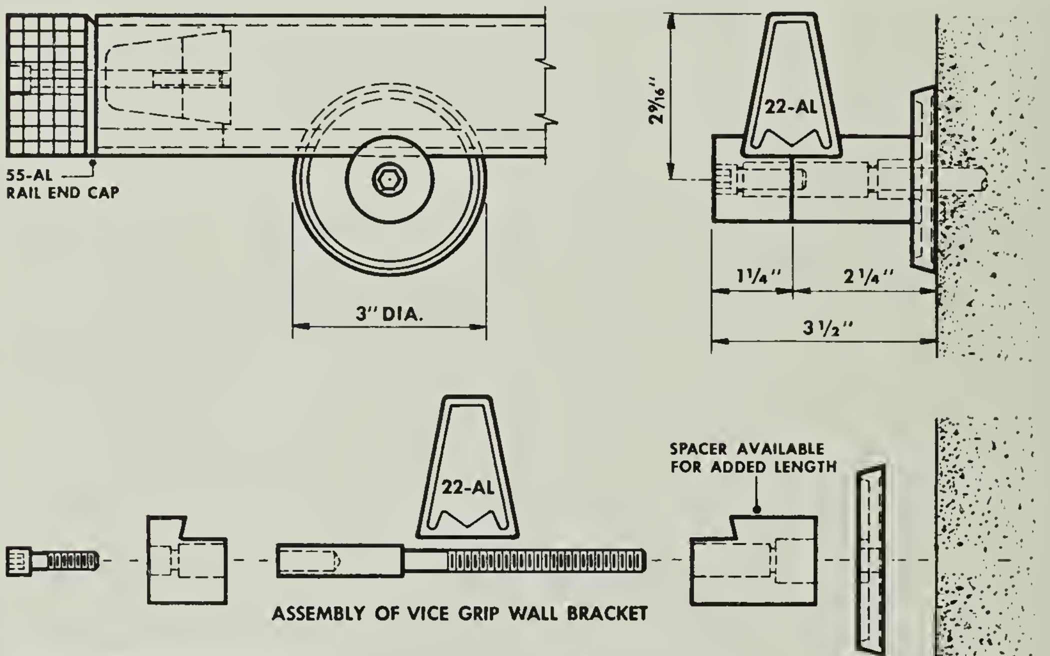




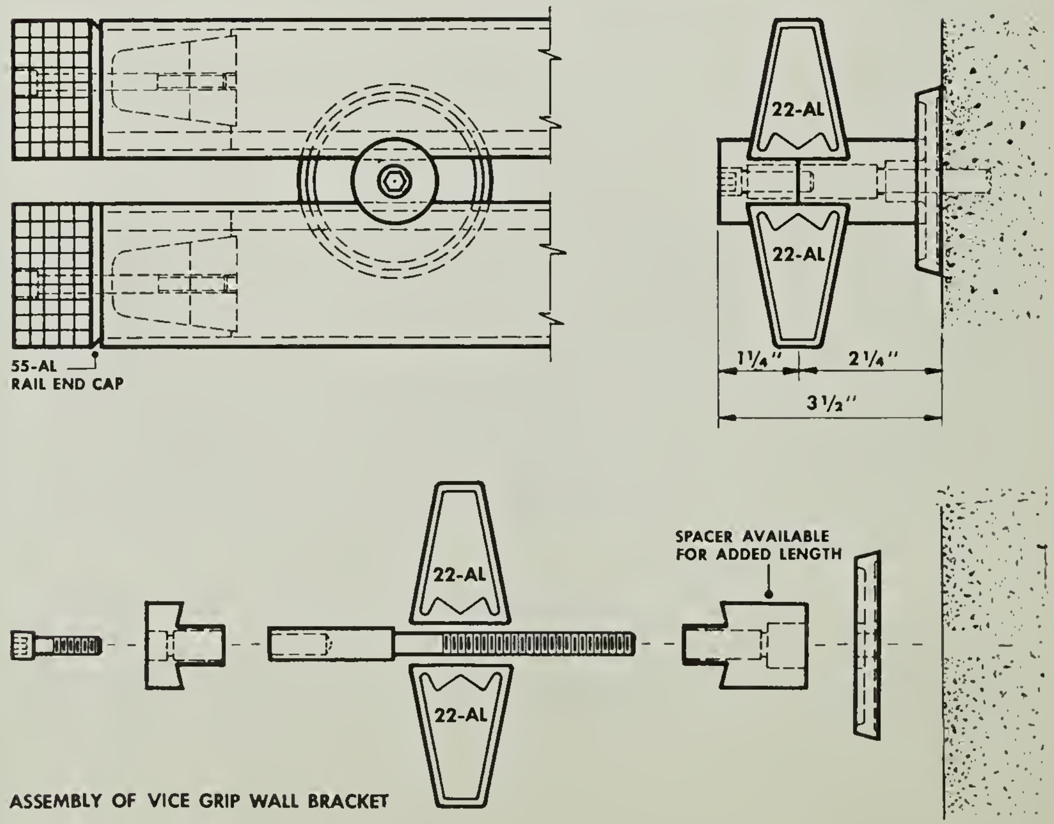



177
RT— 177
RAIL TERMINAL
3" DIA.
5/8"
2 3/4"
3 3/8"
390
SPACER AVAILABLE FOR ADDED LENGTH

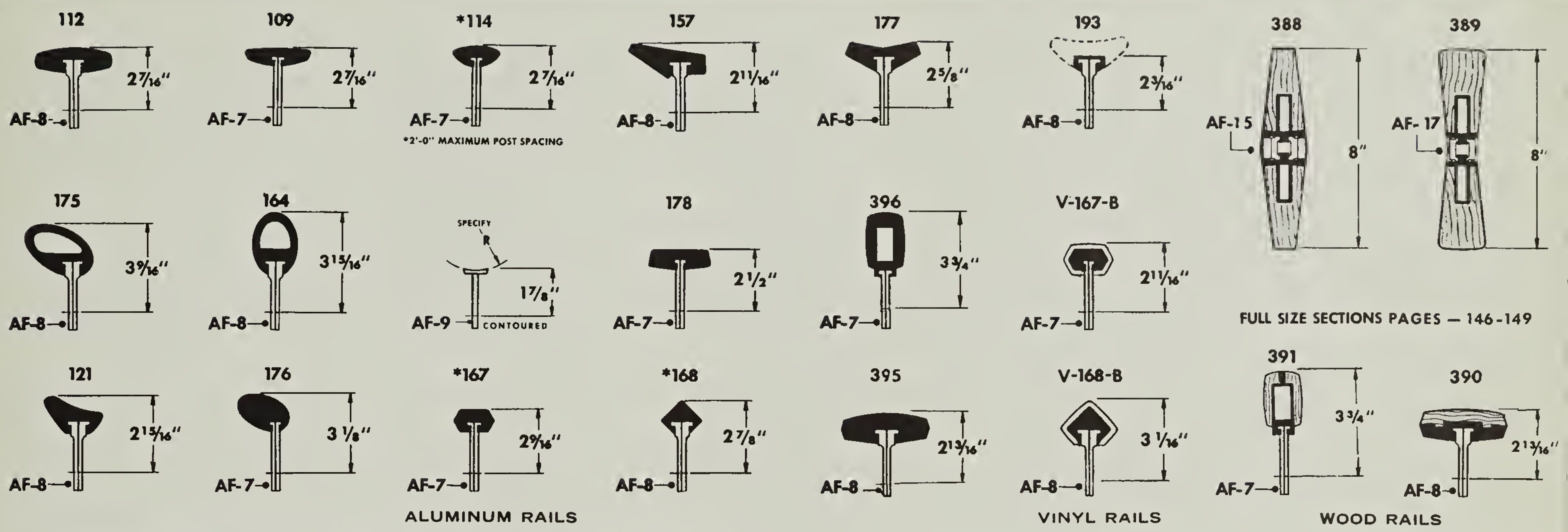
WALL BRACKET 90-AL SCALE 3" = 1'-0"


55-AL
RAIL END CAP
2 9/16"
22-AL
3" DIA.
1 1/4"
2 1/4"
3 1/2"
22-AL
SPACER AVAILABLE FOR ADDED LENGTH
ASSEMBLY OF VICE GRIP WALL BRACKET

WALL BRACKET 88-AL SCALE 3" = 1'-0"

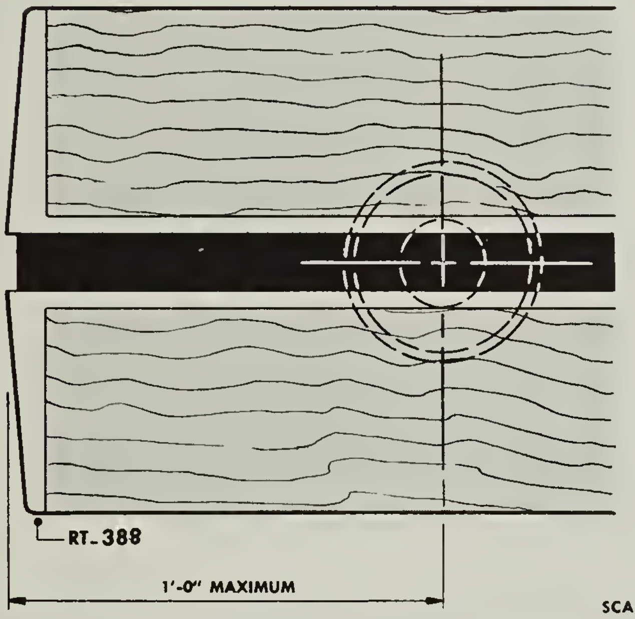

55-AL
RAIL END CAP
22-AL
22-AL
1 1/4"
2 1/4"
3 1/2"
22-AL
22-AL
SPACER AVAILABLE FOR ADDED LENGTH
ASSEMBLY OF VICE GRIP WALL BRACKET

WALL BRACKET 89-AL SCALE 3" = 1'-0"


112
AF-8
2 7/16"
109
AF-7
2 7/16"
*114
AF-7
2 7/16"
*2'-0" MAXIMUM POST SPACING
157
AF-8
2 11/16"
177
AF-8
2 5/8"
193
AF-8
2 3/16"
388
AF-15
8"
389
AF-17
8"
175
AF-8
3 9/16"
164
AF-8
3 15/16"
SPECIFY R
AF-9
1 7/8"
CONTOURED
178
AF-7
2 1/2"
396
AF-7
3 3/4"
V-167-B
AF-7
2 11/16"
FULL SIZE SECTIONS PAGES — 146-149
121
AF-8
2 15/16"
176
AF-7
3 1/8"
*167
AF-7
2 9/16"
*168
AF-8
2 7/8"
395
AF-8
2 13/16"
V-168-B
AF-8
3 1/16"
391
AF-7
3 3/4"
390
AF-8
2 13/16"
ALUMINUM RAILS
VINYL RAILS
WOOD RAILS

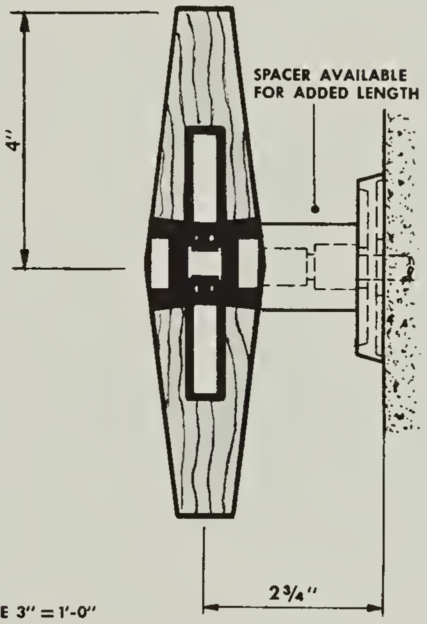
ABOVE DELUXE HANDRAILS APPLICABLE TO WALL BRACKET 90-AL

SCALE 1½" = 1'-0"

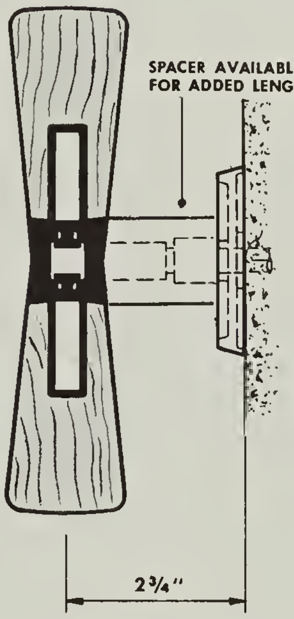

4"
RT-388
1'-0" MAXIMUM

SCALE 3" = 1'-0"

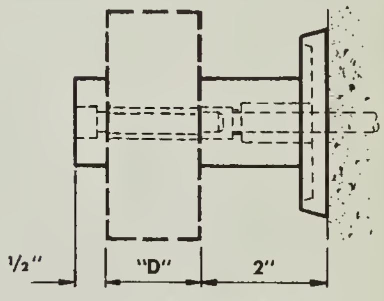
WOOD PLANK HANDRAILS WITH ALUMINUM SUB-STRUCTURES
SOLID WALNUT WITH A RUBBED OIL FINISH.


SPACER AVAILABLE FOR ADDED LENGTH
2¾"

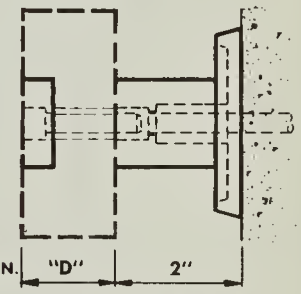
WALL BRACKET 85-AL


SPACER AVAILABLE FOR ADDED LENGTH
2¾"

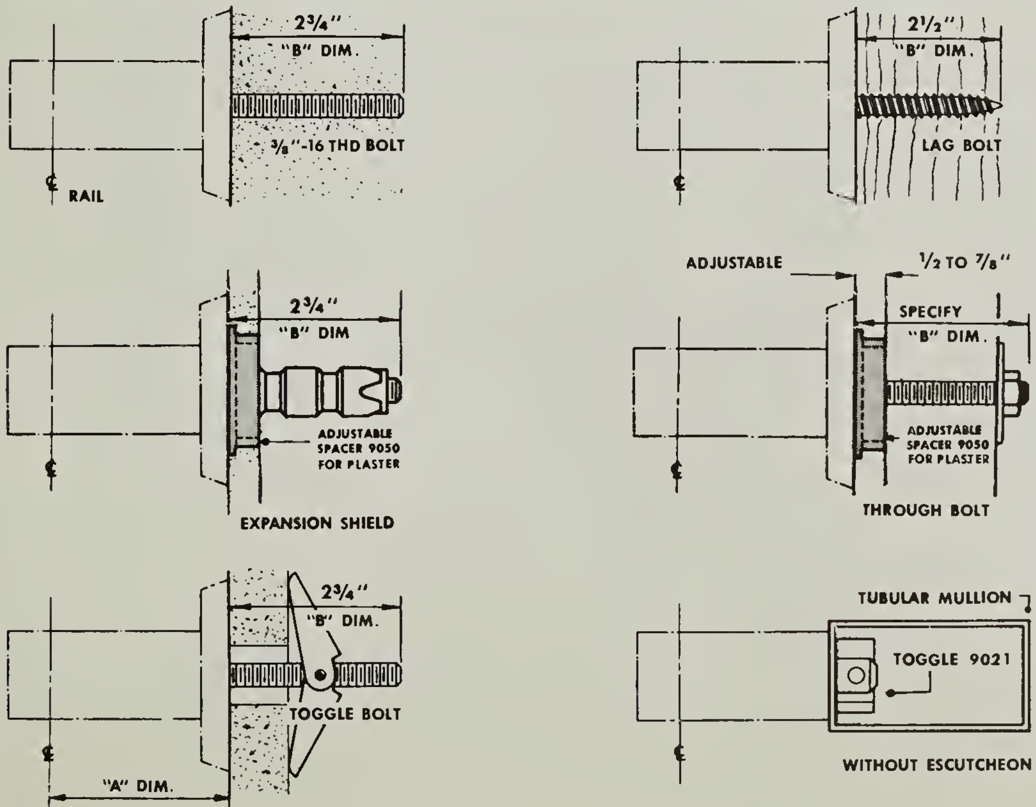
WALL BRACKET 86-AL



WALL BRACKET 87-AL



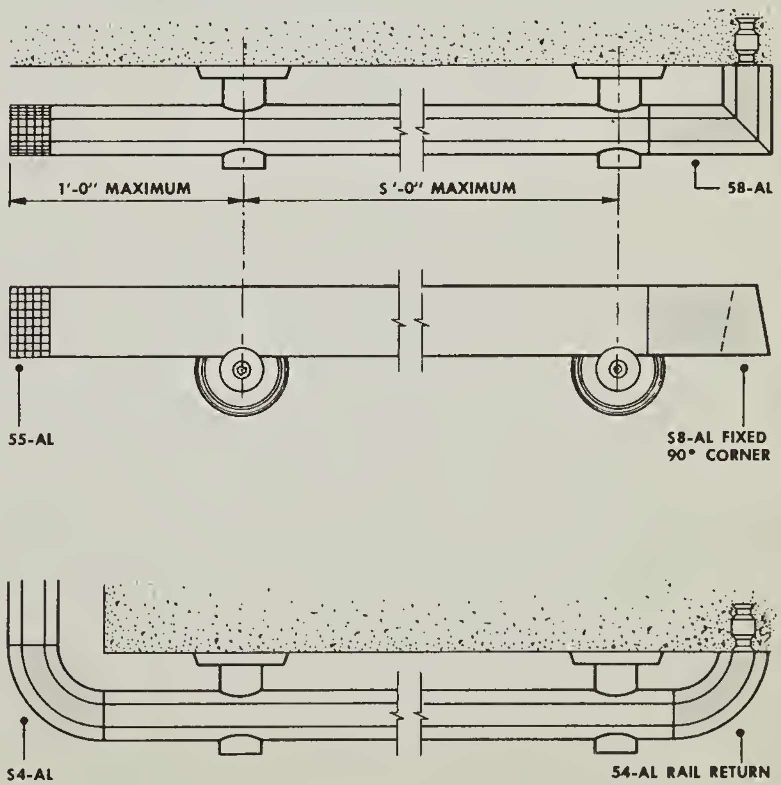
WALL BRACKET 87-AL-R


2¾"
"B" DIM.
⅜"-16 THD BOLT
℄ RAIL
2½"
"B" DIM.
LAG BOLT
℄
2¾"
"B" DIM
ADJUSTABLE SPACER 9050 FOR PLASTER
℄
EXPANSION SHIELD
ADJUSTABLE
½ TO ⅞"
SPECIFY
"B" DIM.
ADJUSTABLE SPACER 9050 FOR PLASTER
℄
THROUGH BOLT
2¾"
"B" DIM.
TOGGLE BOLT
℄
"A" DIM.
TUBULAR MULLION
TOGGLE 9021
℄
WITHOUT ESCUTCHEON

ALTERNATE WALL MOUNTINGS

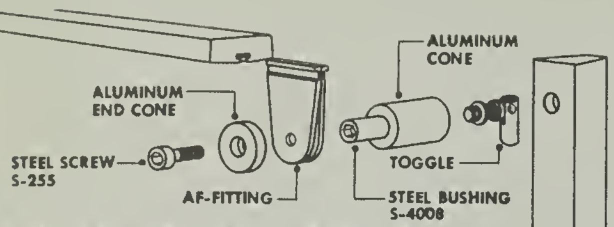
SCALE 3" = 1'-0"

BOLTS AVAILABLE IN SPECIAL LENGTHS

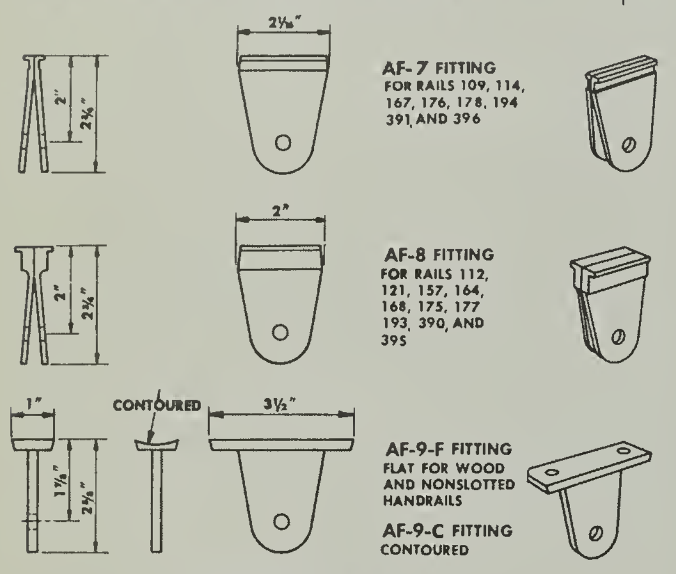

1'-0" MAXIMUM
5'-0" MAXIMUM
58-AL
55-AL
58-AL FIXED 90° CORNER
54-AL
54-AL RAIL RETURN

SCALE 1½" = 1'-0"

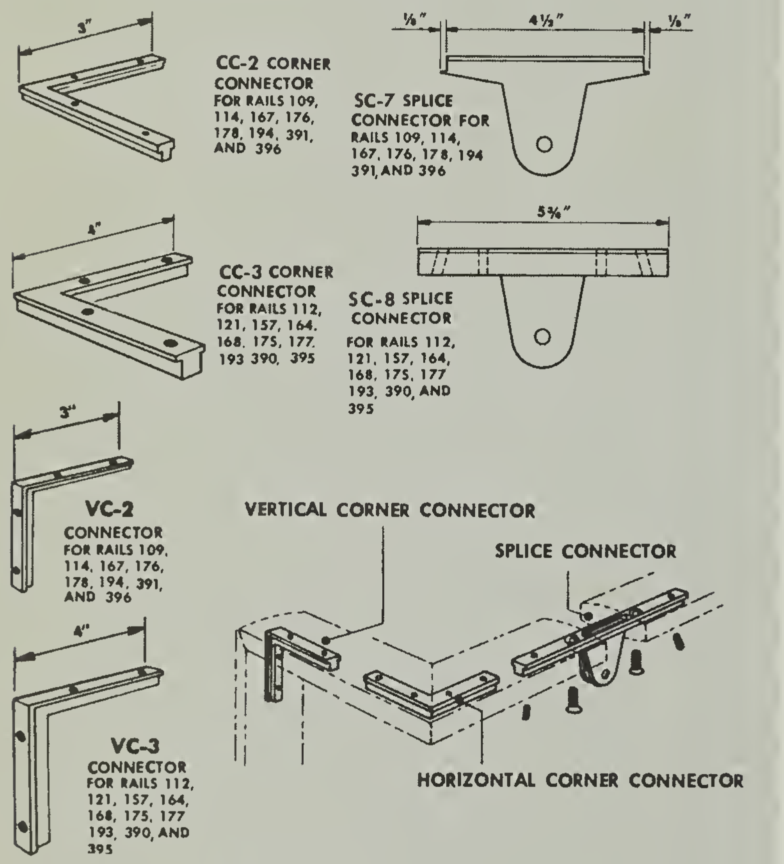
SUGGESTED RAIL ENDINGS


ALUMINUM CONE
ALUMINUM END CONE
STEEL SCREW S-255
AF-FITTING
TOGGLE
STEEL BUSHING S-4008

ASSEMBLY OF INTERMEDIATE CONNECTOR

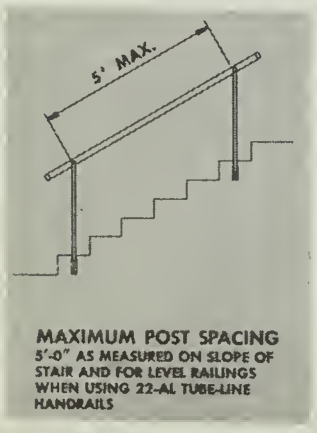

2⅛"
2"
2¾"
AF-7 FITTING FOR RAILS 109, 114, 167, 176, 178, 194 391, AND 396
2"
2"
2¾"
AF-8 FITTING FOR RAILS 112, 121, 157, 164, 168, 175, 177 193, 390, AND 395
1"
CONTOURED
3½"
1⅞"
2⅝"
AF-9-F FITTING FLAT FOR WOOD AND NONSLOTTED HANDRAILS
AF-9-C FITTING CONTOURED

AF FITTINGS FOR ALL RAILS

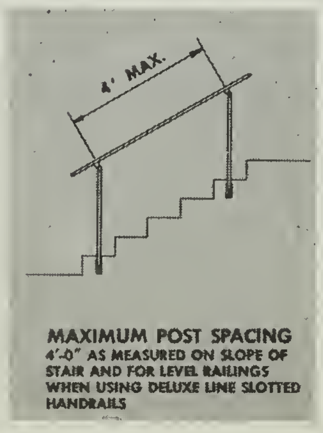

3"
CC-2 CORNER CONNECTOR FOR RAILS 109, 114, 167, 176, 178, 194, 391, AND 396
⅛"
4½"
⅛"
SC-7 SPLICE CONNECTOR FOR RAILS 109, 114, 167, 176, 178, 194 391, AND 396
4"
CC-3 CORNER CONNECTOR FOR RAILS 112, 121, 157, 164, 168, 175, 177, 193 390, 395
5¾"
SC-8 SPLICE CONNECTOR FOR RAILS 112, 121, 157, 164, 168, 175, 177 193, 390, AND 395
3"
VC-2 CONNECTOR FOR RAILS 109, 114, 167, 176, 178, 194, 391, AND 396
4"
VC-3 CONNECTOR FOR RAILS 112, 121, 157, 164, 168, 175, 177 193, 390, AND 395
VERTICAL CORNER CONNECTOR
SPLICE CONNECTOR
HORIZONTAL CORNER CONNECTOR

CORNER CONNECTORS

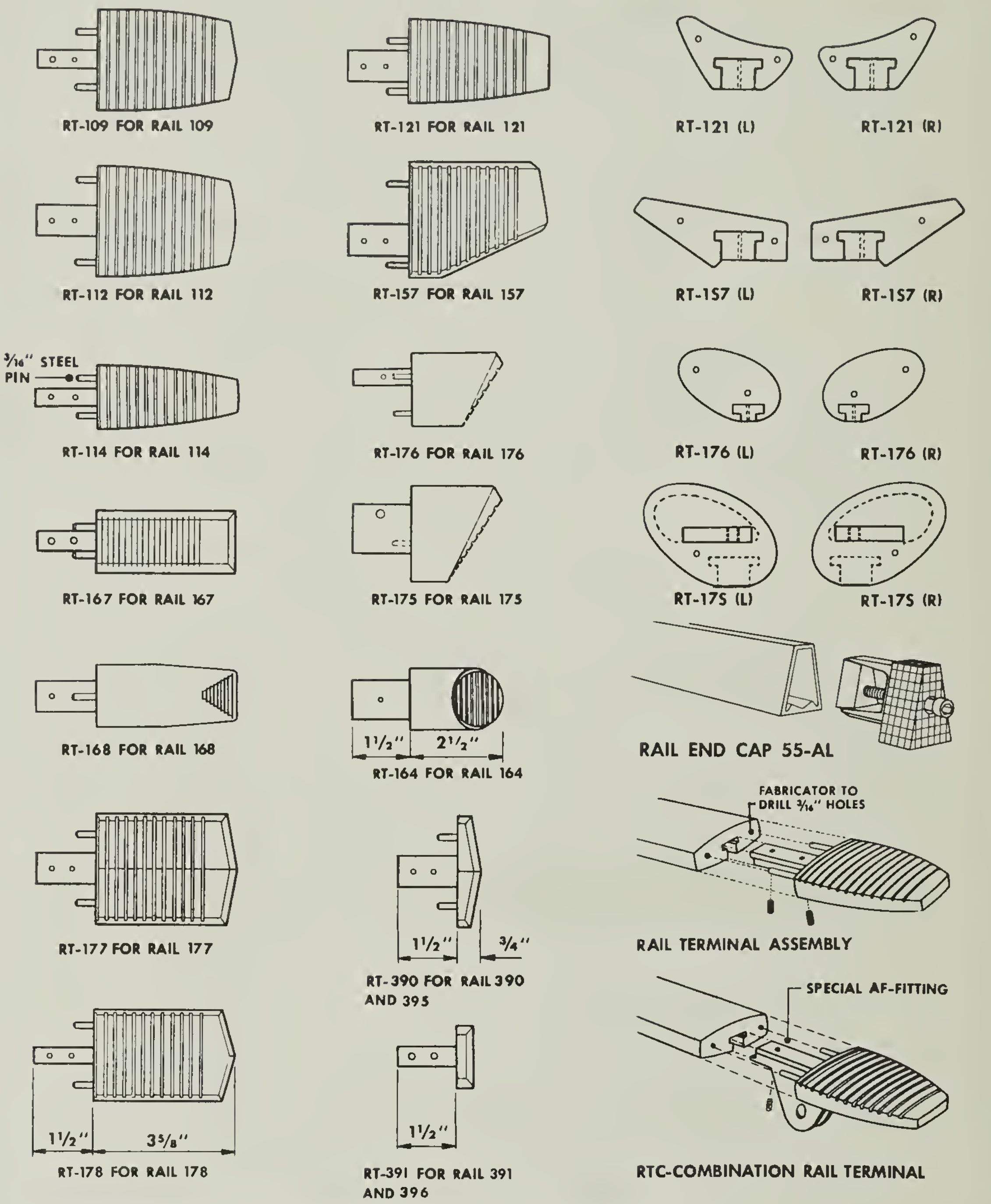
SPLICE CONNECTORS



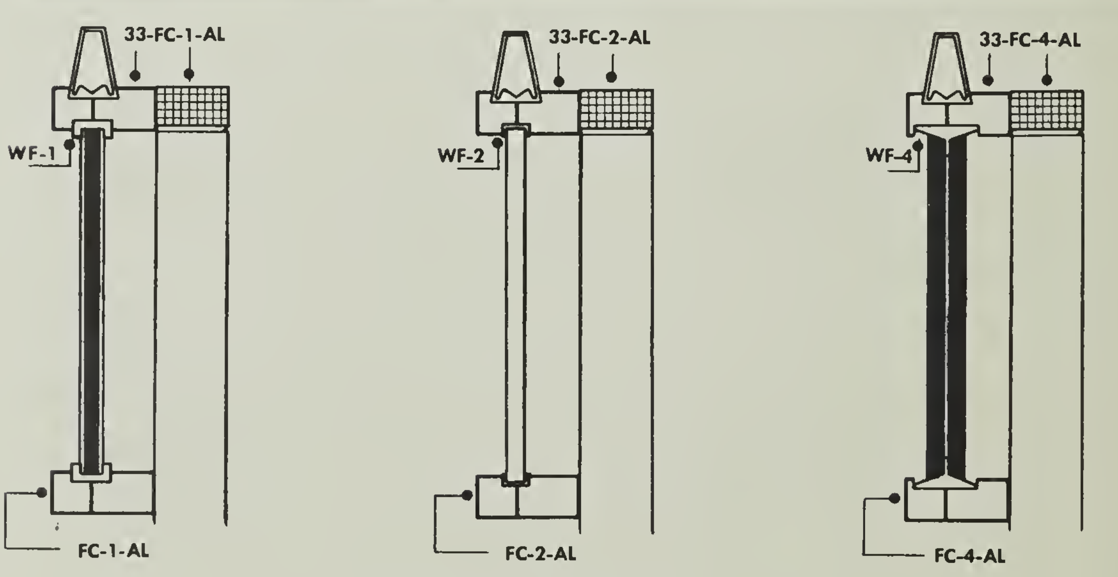
MAXIMUM POST SPACING
5'-0" AS MEASURED ON SLOPE OF STAIR AND FOR LEVEL RAILINGS WHEN USING 22-AL TUBE-LINE HANDRAILS



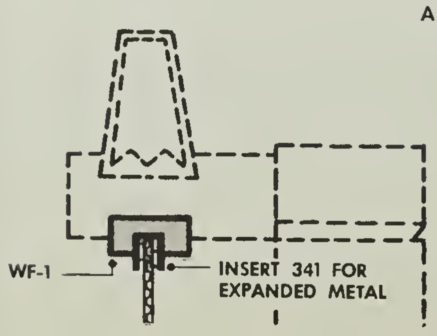
MAXIMUM POST SPACING
4'-0" AS MEASURED ON SLOPE OF STAIR AND FOR LEVEL RAILINGS WHEN USING DELUXE LINE SLOTTED HANDRAILS

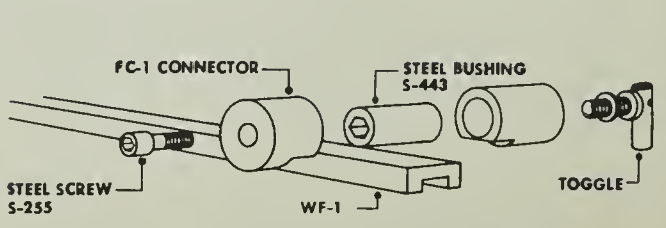

RT-109 FOR RAIL 109
RT-121 FOR RAIL 121
RT-121 (L)
RT-121 (R)
RT-112 FOR RAIL 112
RT-157 FOR RAIL 157
RT-157 (L)
RT-157 (R)
3/16" STEEL PIN
RT-114 FOR RAIL 114
RT-176 FOR RAIL 176
RT-176 (L)
RT-176 (R)
RT-167 FOR RAIL 167
RT-175 FOR RAIL 175
RT-175 (L)
RT-175 (R)
RT-168 FOR RAIL 168
1½"
2½"
RT-164 FOR RAIL 164
RAIL END CAP 55-AL
FABRICATOR TO DRILL 3/16" HOLES
RT-177 FOR RAIL 177
1½"
¾"
RT-390 FOR RAIL 390 AND 395
RAIL TERMINAL ASSEMBLY
SPECIAL AF-FITTING
1½"
3⅝"
RT-178 FOR RAIL 178
1½"
RT-391 FOR RAIL 391 AND 396
RTC-COMBINATION RAIL TERMINAL

RAIL TERMINALS BY BLUMCRAFT MADE FROM SAME BAR MATERIAL AS HANDRAIL BARS

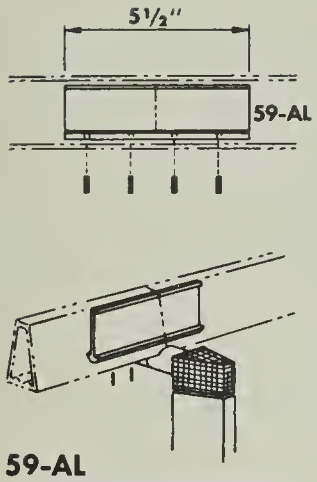

33-FC-1-AL
WF-1
FC-1-AL
33-FC-2-AL
WF-2
FC-2-AL
33-FC-4-AL
WF-4
FC-4-AL

APPLICATION OF PANELS

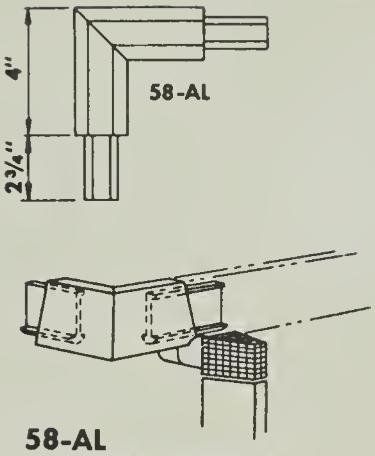

WF-1
INSERT 341 FOR EXPANDED METAL


FC-1 CONNECTOR
STEEL BUSHING S-443
STEEL SCREW S-255
WF-1
TOGGLE

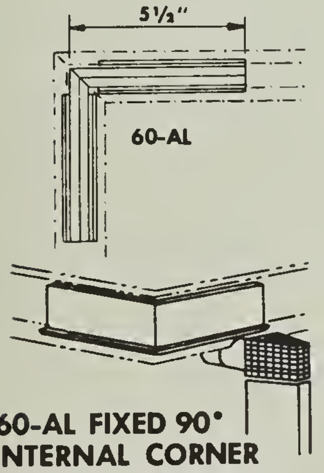
ADJUSTABLE FC FRAME CONNECTOR



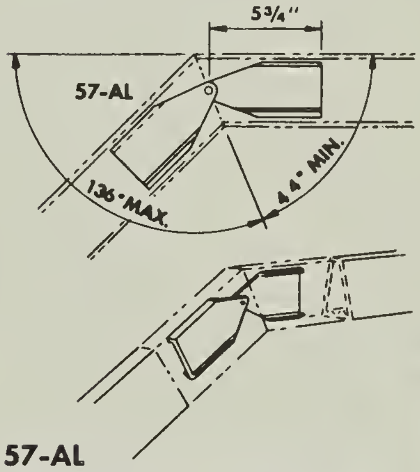
**59-AL
SPLICE CONNECTOR**



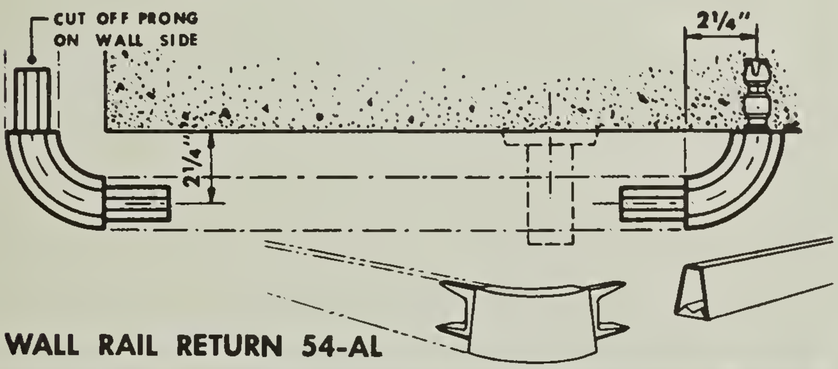
**58-AL
FIXED 90° CORNER**



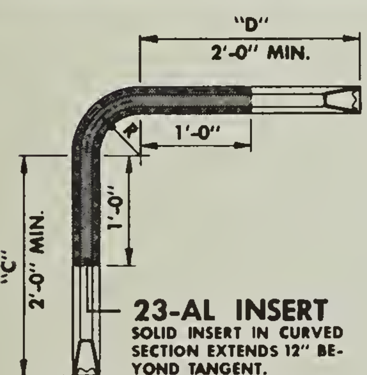
**60-AL FIXED 90°
INTERNAL CORNER
SPLICE CONNECTOR**


5¾"
57-AL
135° MAX.
44° MIN.

**57-AL
ADJUSTABLE CONNECTOR**

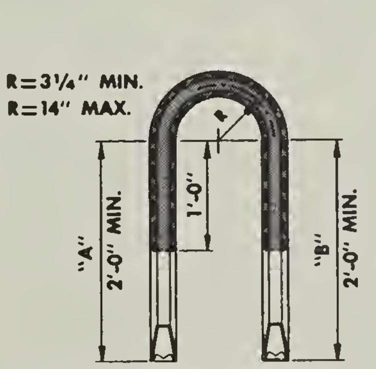

CUT OFF PRONG ON WALL SIDE
2¼"
2¼"

WALL RAIL RETURN 54-AL


"D"
2'-0" MIN.
R
1'-0"
1'-0"
"C"
2'-0" MIN.
23-AL INSERT
SOLID INSERT IN CURVED SECTION EXTENDS 12" BEYOND TANGENT.

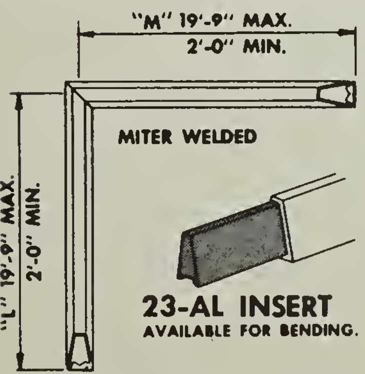
TOP VIEW-90° BEND

ONE LEG OF 90° BEND NOT TO EXCEED 6'-0" FOR SHIPPING PURPOSES.


R=3¼" MIN.
R=14" MAX.
R
1'-0"
"A"
2'-0" MIN.
"B"
2'-0" MIN.

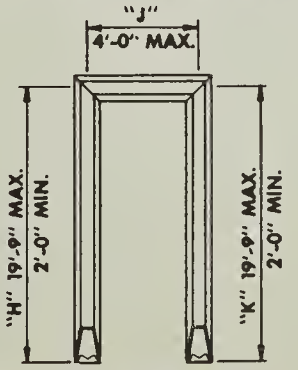
TOP VIEW-180° BEND

BENDS AVAILABLE TO FABRICATOR FROM ANY PORTION OF A 20'-0" BAR


"M" 19'-9" MAX.
2'-0" MIN.
MITER WELDED
"L" 19'-9" MAX.
2'-0" MIN.
23-AL INSERT
AVAILABLE FOR BENDING.

TOP VIEW—90° MITER

ONE LEG OF 90° MITER NOT TO EXCEED 6'-0" FOR SHIPPING PURPOSES.


"J"
4'-0" MAX.
"H" 19'-9" MAX.
2'-0" MIN.
"K" 19'-9" MAX.
2'-0" MIN.

TOP VIEW-180° MITER

ALL MITERS WELDED

SUGGESTED SPECIFICATIONS

The Miscellaneous Iron Contractor shall furnish and install Tube-Line railings where indicated on drawings. Part numbers refer to stock components manufactured by Blumcraft of Pittsburgh, 460 Melwood Street, Pittsburgh 13, Pa.

Connectors shall be securely mounted. Posts shall be set plumb and rails properly aligned. Splice joints are to be centered at the posts or wall brackets only and there shall be no splicing between posts or brackets. Posts and wall brackets are to be spaced not over 5'-0" on centers when using 22-AL Tube-Line handrail, or 4'-0" maximum spacing when using Blumcraft De-Luxe line slotted handrails.

CONCRETE STAIR ANCHORS made of malleable iron shall be built into concrete for side-mounted posts. Select correct Blumcraft anchor number to accommodate bracket as listed in catalogue. After installation, exposed portion of malleable iron anchor shall be given a protective coat of paint, type and color to be selected by architect.

ALLOY of handrail and post material shall be U.S. Alloy 6063 or Canada Alloy 50SA33. The ornamental caps, brackets and terminals shall be casting alloy #A214.

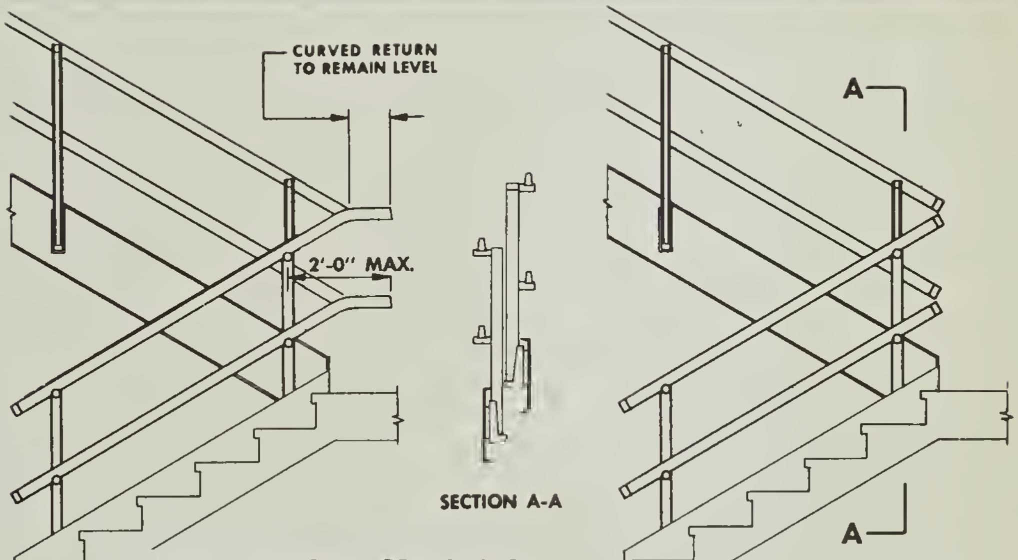
BOXED STRINGERS shall be reinforced with steel blocking at each side mounted bracket. The reinforced blocking shall be welded to the web of the stringer.

INSTALLATION of railing shall be rigid and secure, installed by mechanics experienced in the erection of architectural aluminum. All fasteners, screws and fittings shall be drawn tightly. Recessed holes of locking screws shall be sealed with a plastic aluminum filler cement.

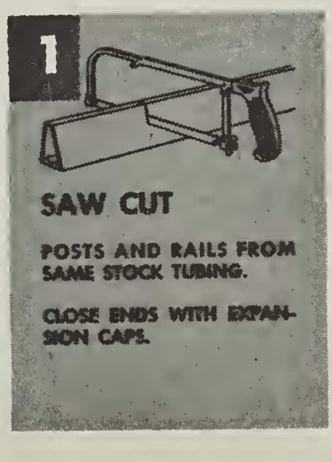
FINISH shall be selected by Architect as follows: (a) Mill finish. (b) Rubbed satin. (c) Anodized. Note: All exterior railings shall be anodized.

SHORT FORM SPECIFICATIONS: Aluminum railings shall be built in strict accordance with the suggested *Manufacturer's Specifications* shown in Blumcraft's current catalogue and as published in Sweet's Architectural File 6e/Blu, and in accordance with the details shown on sheet ____________ of Architect's drawing. All aluminum shall have a satin finish.

The Miscellaneous Iron Contractor, who builds the railings from Blumcraft materials, shall be responsible for workmanship, finish and rigidity of the installation . . . . and shall forward shop drawings to BLUMCRAFT OF PITTSBURGH for manufacturer's recommendations, prior to submission for Architect's approval.


CURVED RETURN TO REMAIN LEVEL
2'-0" MAX.
SECTION A-A
A
A

TO AVOID COMPOUND BENDS AND GOOSENECKS EXTEND 180° RETURN BEYOND RISER LINE.



1

SAW CUT

POSTS AND RAILS FROM SAME STOCK TUBING.

CLOSE ENDS WITH EXPANSION CAPS.

2

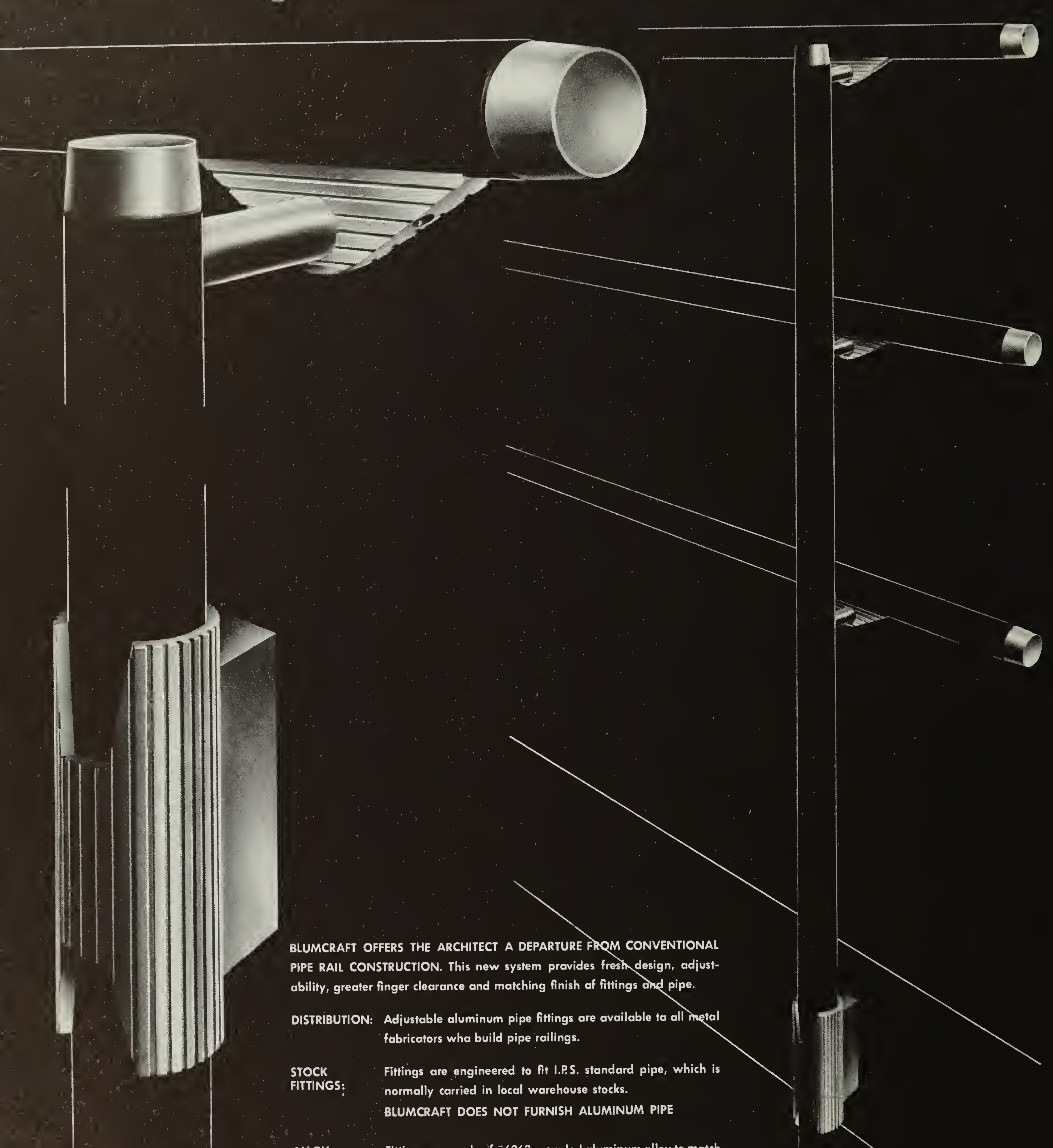
DRILL

ONLY ONE HOLE FOR EACH INTERMEDIATE RAIL CONNECTION.

NO DRILLING REQUIRED FOR TOP RAIL.

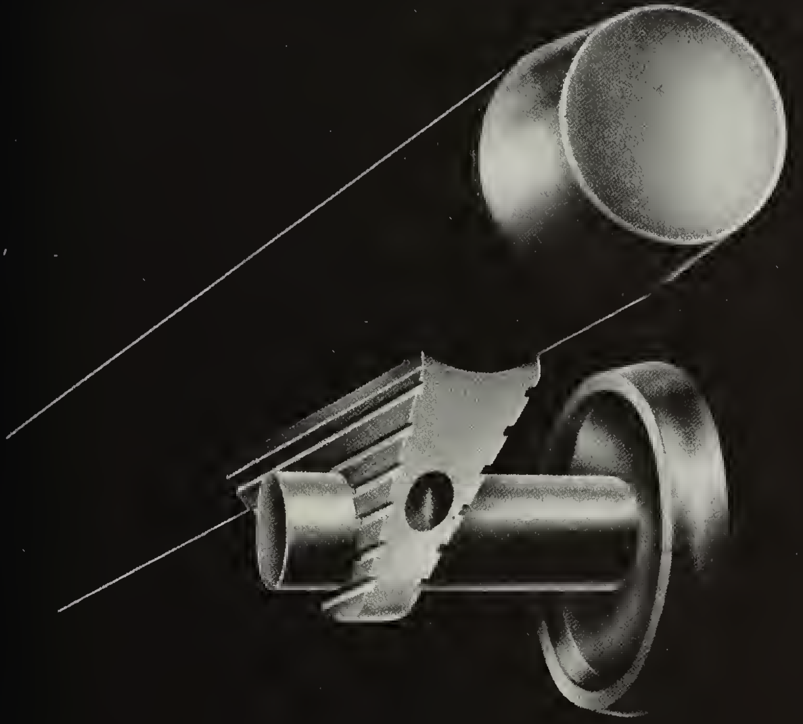
NO TAPPING REQUIRED.

ONLY TWO FABRICATION STEPS

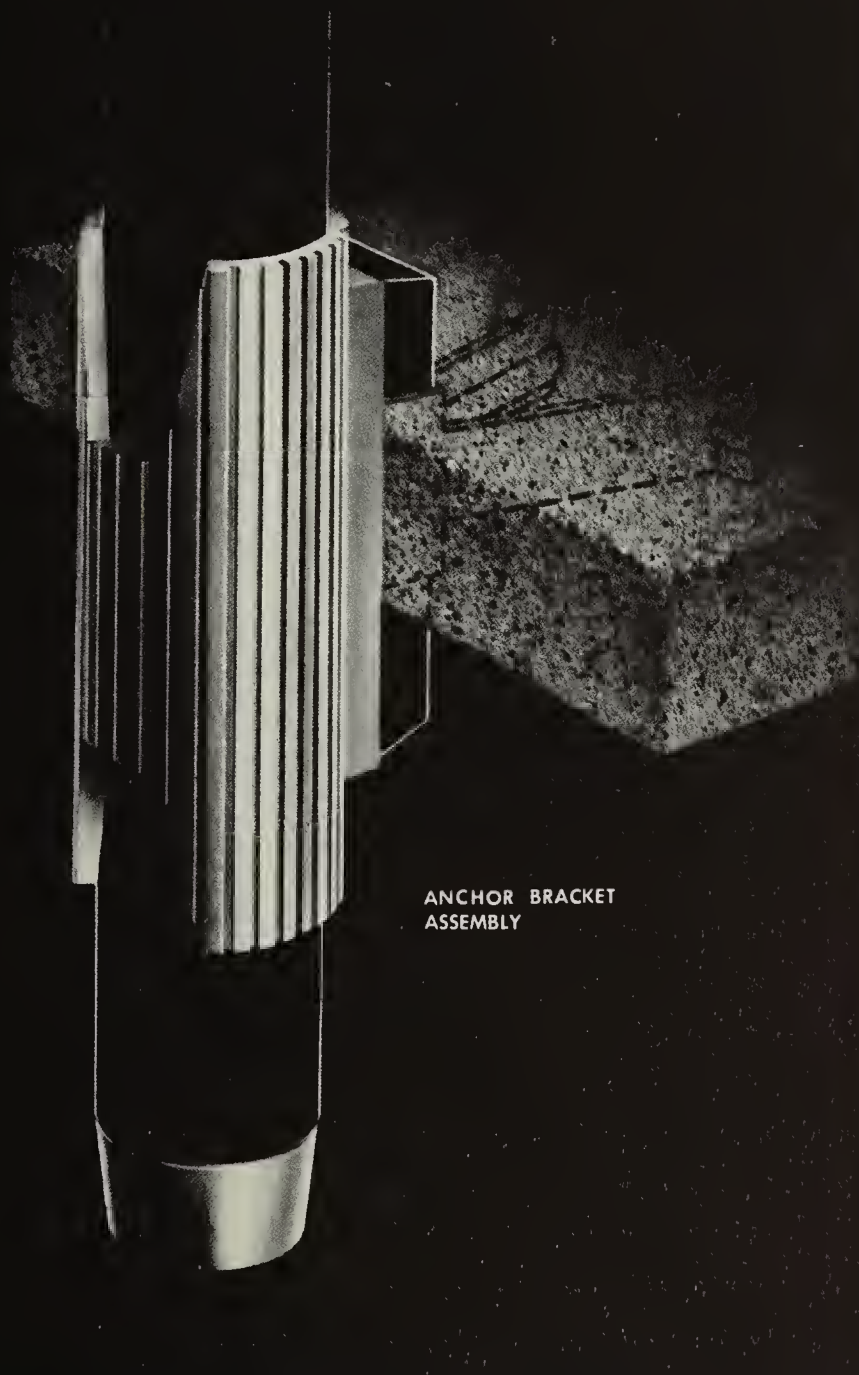


BLUMCRAFT OFFERS THE ARCHITECT A DEPARTURE FROM CONVENTIONAL PIPE RAIL CONSTRUCTION. This new system provides fresh design, adjustability, greater finger clearance and matching finish of fittings and pipe.

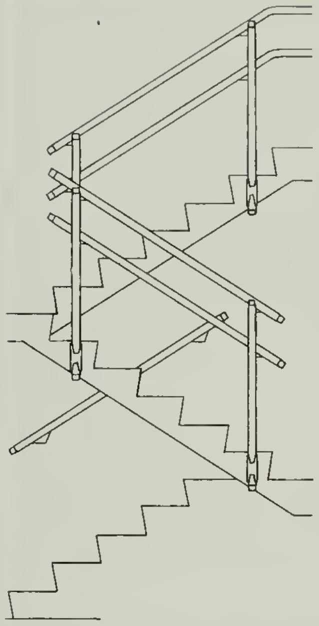
DISTRIBUTION:	Adjustable aluminum pipe fittings are available to all metal fabricators who build pipe railings.
STOCK FITTINGS:	Fittings are engineered to fit I.P.S. standard pipe, which is normally carried in local warehouse stocks. BLUMCRAFT DOES NOT FURNISH ALUMINUM PIPE
ALLOY:	Fittings are made of #6063 extruded aluminum alloy to match #6063 extruded aluminum handrail pipe, (no cast or forged fittings).
LESS COSTLY:	Adjustable features reduce costly shop and field labor.

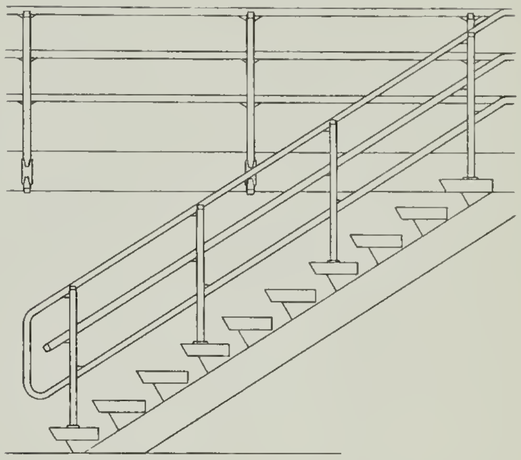


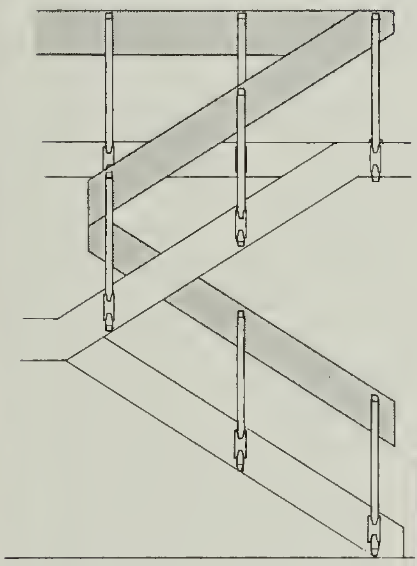
WALL BRACKET

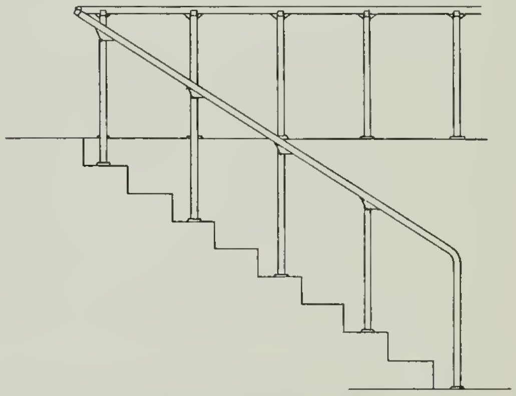


ANCHOR BRACKET ASSEMBLY









DETAILS

SPECIFICATIONS

The Miscellaneous Iron Contractor shall furnish and install all aluminum pipe railings where indicated on the drawings.

COMPONENTS: The pipe shall be stock ____ I.P.S. extruded aluminum, alloy 6063. The pipe fittings shall be as manufactured by Blumcraft of Pittsburgh, 460 Melwood Street, Pittsburgh 13, Pa., as illustrated in their catalogue T.P.-64, Sweet's Industrial construction file 6b/Blu and in Blumcraft general catalogue M-64, Sweet's Architectural file 6e/Blu. All fittings shall be of extruded alloy 6063, not cast or forged.

SPLICING: Splice joints shall occur only at posts and wall brackets.

SHOP DRAWINGS: This Contractor shall take field measurements and submit shop drawings in triplicate for Architect's approval.

FINISH: Fittings furnished to metal fabricator in a preliminary finish, fabricator shall apply final finish as specified by architect. Architect to select one of the following:

(A) Mill finish (B) Rubbed Satin (C) Anodized

FABRICATOR'S RESPONSIBILITY: The Miscellaneous Iron Contractor who builds the railings from stock pipe and Blumcraft fittings shall apply the finish as specified, and be responsible for the workmanship, finish and rigidity of the installation.

WHEN ORDERING FITTINGS, SPECIFY 1¼ OR 1½ I.P.S. PIPE SIZE • • • • • •

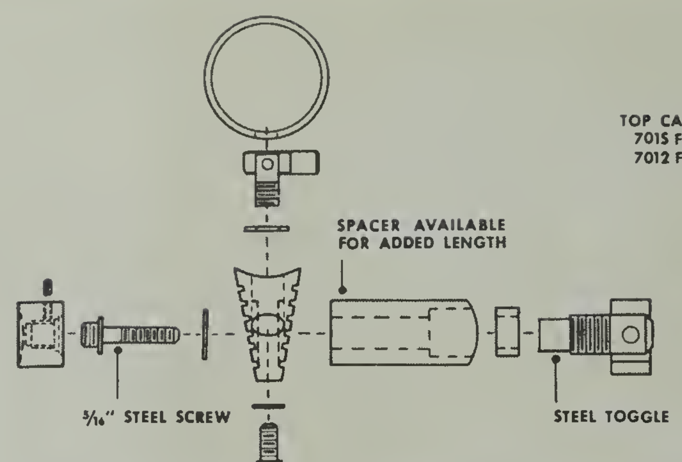
BLUMCRAFT DOES NOT FURNISH ALUMINUM PIPE OR TUBING

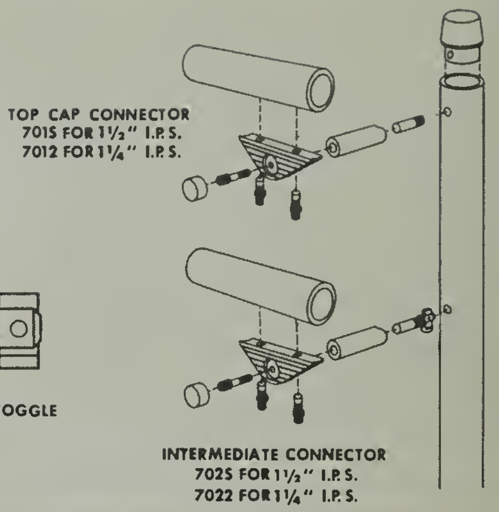
SIZES OF ALUMINUM HANDRAIL PIPE

I.P.S. PIPE SIZE	OUTSIDE DIAMETER	INSIDE DIAMETER	WALL THICKNESS
1¼	1.660	1.380	.140
1½	1.900	1.610	.145

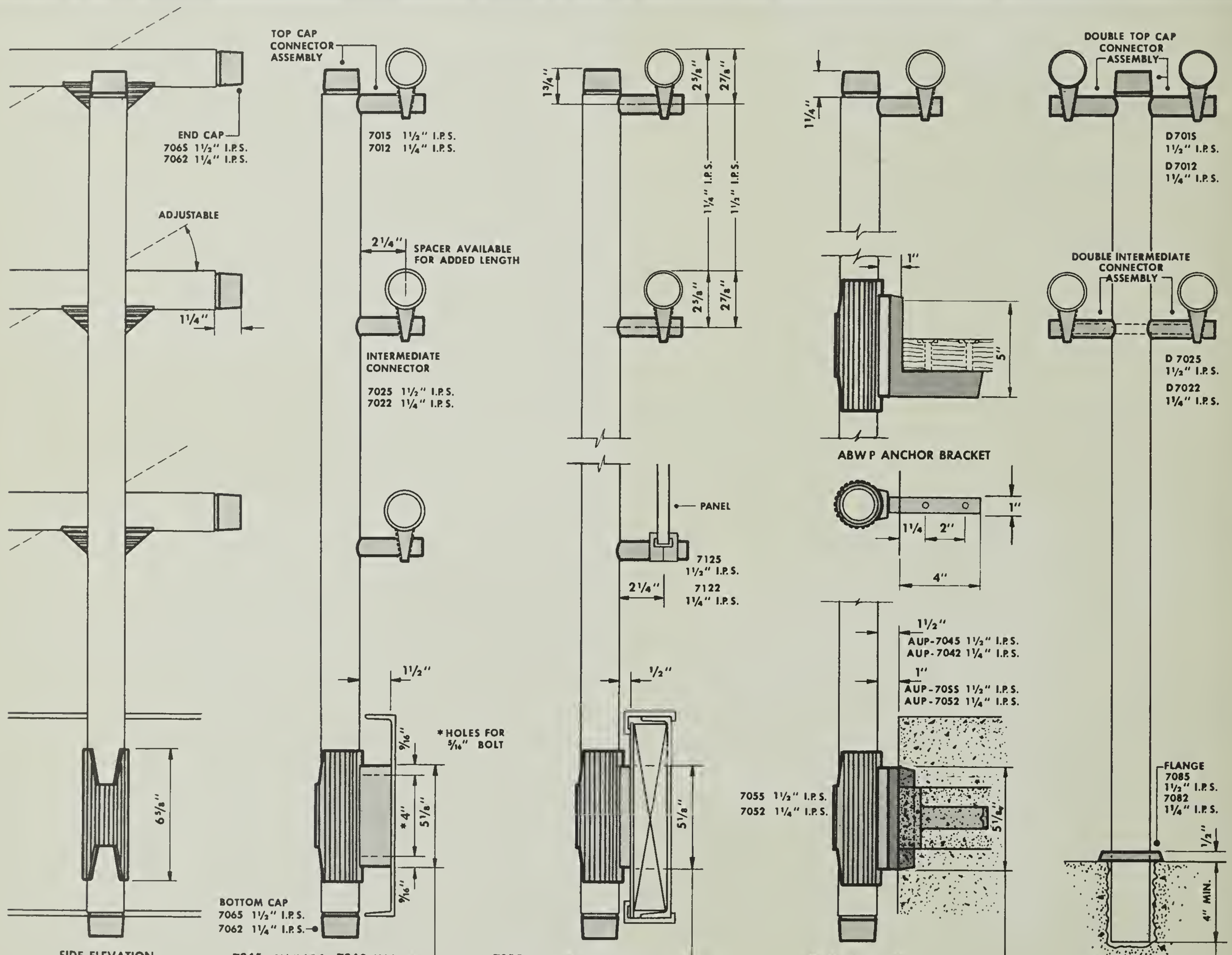
HOLE DRILLING SIZES BY METAL FABRICATOR

TOGGLE HOLE SIZE	
POST	RAIL
19/32" DRILL	15/32" DRILL


SPACER AVAILABLE FOR ADDED LENGTH
5/16" STEEL SCREW
STEEL TOGGLE


TOP CAP CONNECTOR
7015 FOR 1½" I.P.S.
7012 FOR 1¼" I.P.S.
INTERMEDIATE CONNECTOR
7025 FOR 1½" I.P.S.
7022 FOR 1¼" I.P.S.

IF HANDRAIL AND POST DIAMETERS ARE NOT THE SAME, SPECIFY BOTH POST AND RAIL DIAMETERS WHEN ORDERING.


END CAP
7065 1½" I.P.S.
7062 1¼" I.P.S.
ADJUSTABLE
1¼"
6⅝"
TOP CAP CONNECTOR ASSEMBLY
7015 1½" I.P.S.
7012 1¼" I.P.S.
2¼"
SPACER AVAILABLE FOR ADDED LENGTH
INTERMEDIATE CONNECTOR
7025 1½" I.P.S.
7022 1¼" I.P.S.
1½"
9/16"
*4"
5⅛"
9/16"
*HOLES FOR 5/16" BOLT
BOTTOM CAP
7065 1½" I.P.S.
7062 1¼" I.P.S.
1¾"
2⅝"
2⅞"
1¼" I.P.S.
1½" I.P.S.
2⅝"
2⅞"
PANEL
7125
1½" I.P.S.
7122
1¼" I.P.S.
2¼"
½"
5⅛"
1¼"
1"
5"
ABW P ANCHOR BRACKET
1"
1¼
2"
4"
1½"
AUP-7045 1½" I.P.S.
AUP-7042 1¼" I.P.S.
1"
AUP-7055 1½" I.P.S.
AUP-7052 1¼" I.P.S.
7055 1½" I.P.S.
7052 1¼" I.P.S.
5⅛"
DOUBLE TOP CAP CONNECTOR ASSEMBLY
D7015
1½" I.P.S.
D7012
1¼" I.P.S.
DOUBLE INTERMEDIATE CONNECTOR ASSEMBLY
D 7025
1½" I.P.S.
D7022
1¼" I.P.S.
FLANGE
7085
1½" I.P.S.
7082
1¼" I.P.S.
½"
4" MIN.

SIDE ELEVATION

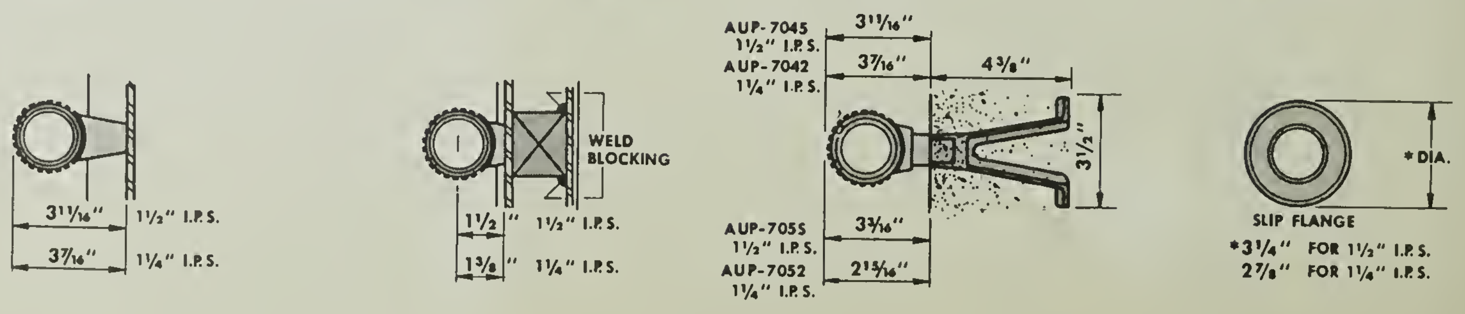
7045 1½" I.P.S. 7042 1¼" I.P.S.

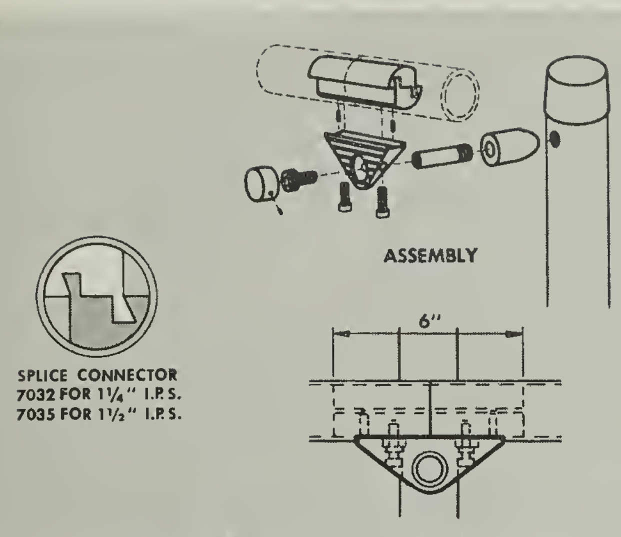
7055 1½" I.P.S. 7052 1¼" I.P.S.

AUP – ANCHOR

GROUTED POST

ALTERNATE MOUNTINGS
SCALE 1½" = 1'-0"


3 11/16"
1½" I.P.S.
3 7/16"
1¼" I.P.S.
WELD BLOCKING
1½
1½" I.P.S.
1⅜
1¼" I.P.S.
AUP-7045
1½" I.P.S.
AUP-7042
1¼" I.P.S.
3 11/16"
3 7/16"
4⅜"
3½"
AUP-7055
1½" I.P.S.
AUP-7052
1¼" I.P.S.
3 3/16"
2 15/16"
* DIA.
SLIP FLANGE
*3¼" FOR 1½" I.P.S.
2⅞" FOR 1¼" I.P.S.


ASSEMBLY
6″
SPLICE CONNECTOR
7032 FOR 1¼″ I.P.S.
7035 FOR 1½″ I.P.S.

INTERNAL SPLICE CONNECTOR

POST SPACING—NOT TO EXCEED 5′-0″ AS MEASURED ON SLOPE OF STAIR, AND NOT TO EXCEED 5′-0″ FOR LEVEL RAILING.

STARTING POSTS—INCLUDING THOSE WITH SIDE MOUNTED BRACKETS, SHOULD EXTEND INTO FLOOR FOR ADDED RIGIDITY.

BOXED METAL STRINGERS—SHOULD BE REINFORCED BEHIND EACH POST MOUNTING BRACKET WITH STEEL BLOCKING WELDED TO WEB OF STRINGER.

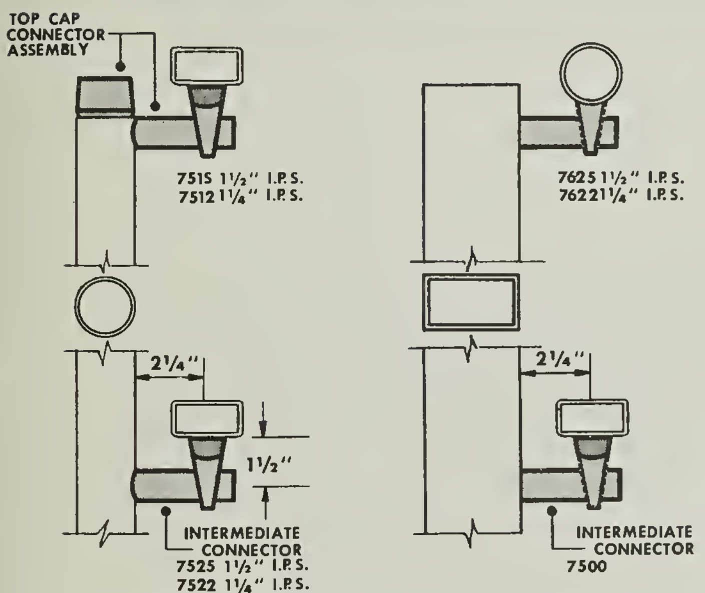
CONCRETE STAIRS—USE ENGINEERED BUILT-IN ADJUSTABLE ANCHOR ASSEMBLY, AS ILLUSTRATED FOR RIGID MOUNTING TO CONCRETE . . . ELIMINATES EXPANSION SHIELDS.

RIGIDITY—THE RAILING INSTALLATION WILL BE ONLY AS RIGID AS THE ANCHORING IS TO THE STAIR, FLOOR OR WALL.

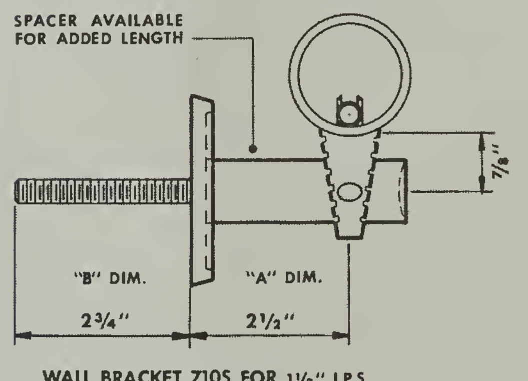
FABRICATION—LOCAL FABRICATORS BUILD THE COMPLETE RAILING FROM STOCK PIPE WITH BLUMCRAFT PIPE FITTINGS AND ARE RESPONSIBLE FOR THE RIGIDITY AND FINAL FINISHED APPEARANCE OF THE INSTALLATION.

FINISH—BLUMCRAFT PIPE FITTINGS FURNISHED TO METAL FABRICATORS IN A PRELIMINARY FINISH. FABRICATOR SHALL APPLY FINAL FINISH AS SPECIFIED BY ARCHITECT.

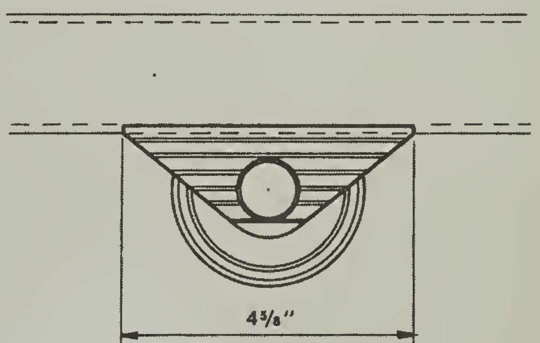
SERVICE TO ARCHITECT—OUR ENGINEERING DEPARTMENT WILL REVIEW PRELIMINARY DRAWINGS FOR CONSTRUCTION AND MOUNTINGS . . . FOR MOUNTINGS NOT SHOWN, BLUMCRAFT WILL PREPARE TRACING DETAILS TO SCALE REQUESTED BY ARCHITECT.


TOP CAP CONNECTOR ASSEMBLY
7515 1½″ I.P.S.
7512 1¼″ I.P.S.
7625 1½″ I.P.S.
7622 1¼″ I.P.S.
2¼″
2¼″
1½″
INTERMEDIATE CONNECTOR
7525 1½″ I.P.S.
7522 1¼″ I.P.S.
INTERMEDIATE CONNECTOR
7500

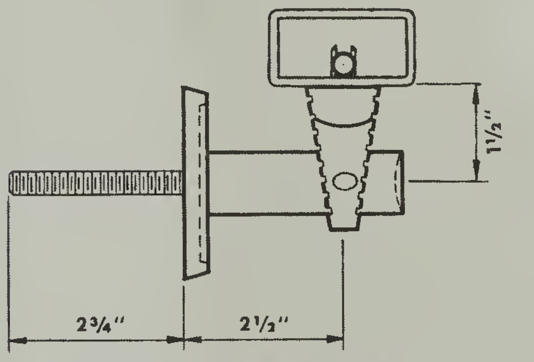
FITTINGS FOR RECTANGULAR OR SQUARE TUBING


SPACER AVAILABLE FOR ADDED LENGTH
⅞″
"B" DIM.
"A" DIM.
2¾″
2½″

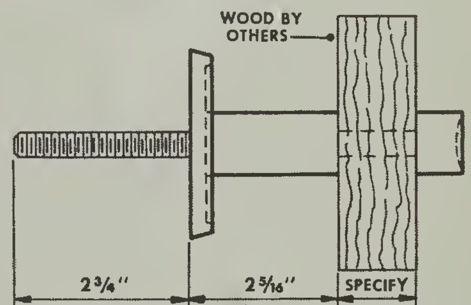
WALL BRACKET 7105 FOR 1½″ I.P.S.
WALL BRACKET 7102 FOR 1¼″ I.P.S.



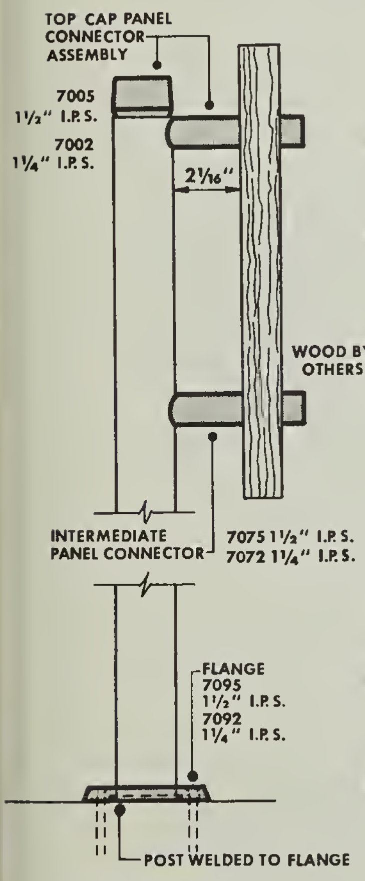
SIDE ELEVATION



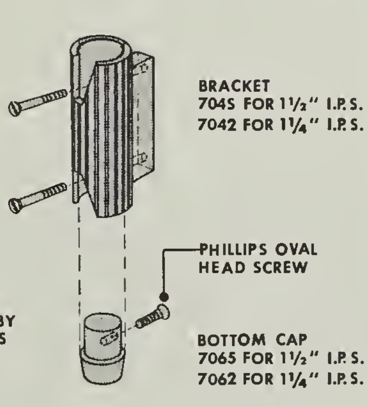
WALL BRACKET 7510 FOR FLAT SURFACES


WOOD BY OTHERS
2¾″
2 5/16″
SPECIFY

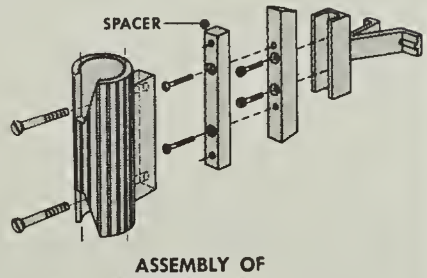
WALL BRACKET 711 FOR WOOD-PANEL RAILS


TOP CAP PANEL CONNECTOR ASSEMBLY
7005
1½″ I.P.S.
7002
1¼″ I.P.S.
2 1/16″
WOOD BY OTHERS
INTERMEDIATE PANEL CONNECTOR
7075 1½″ I.P.S.
7072 1¼″ I.P.S.
FLANGE
7095
1½″ I.P.S.
7092
1¼″ I.P.S.
POST WELDED TO FLANGE

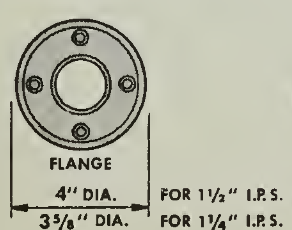
FLOOR MOUNTING

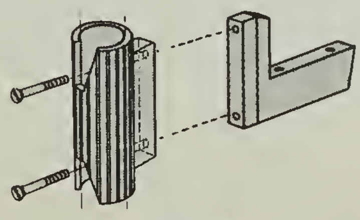

BRACKET
7045 FOR 1½″ I.P.S.
7042 FOR 1¼″ I.P.S.
PHILLIPS OVAL HEAD SCREW
BOTTOM CAP
7065 FOR 1½″ I.P.S.
7062 FOR 1¼″ I.P.S.

ASSEMBLY

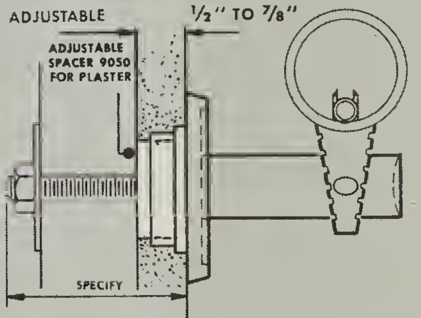


ASSEMBLY OF AUP – ANCHOR w/ BRACKET

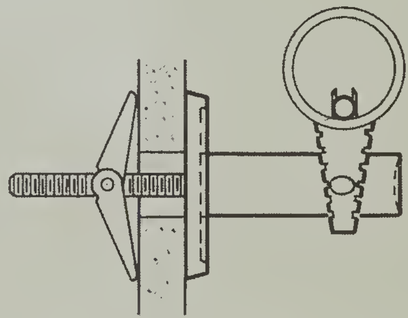

FLANGE
4″ DIA.
3⅝″ DIA.
FOR 1½″ I.P.S.
FOR 1¼″ I.P.S.



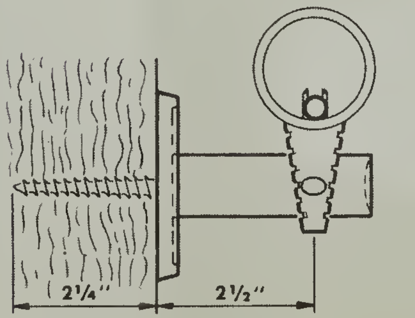
ASSEMBLY OF ABWP – ANCHOR w/ BRACKET


ADJUSTABLE
½″ TO ⅞″
ADJUSTABLE SPACER 9050 FOR PLASTER
SPECIFY

THROUGH BOLT IN MASONRY

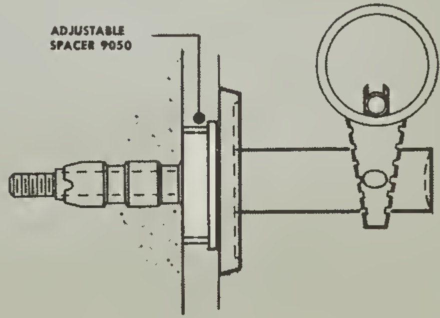


BOLT FOR TOGGLE ANCHOR

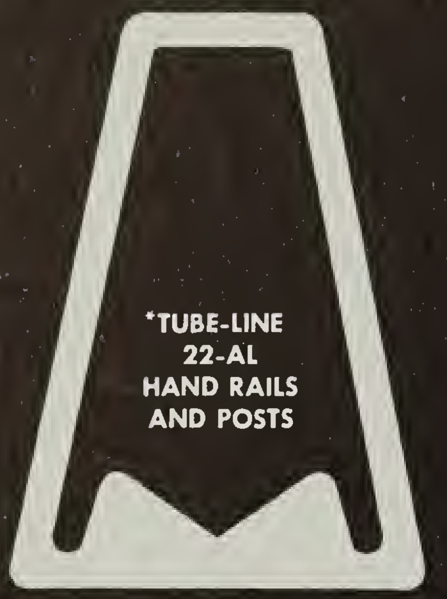


LAG BOLT

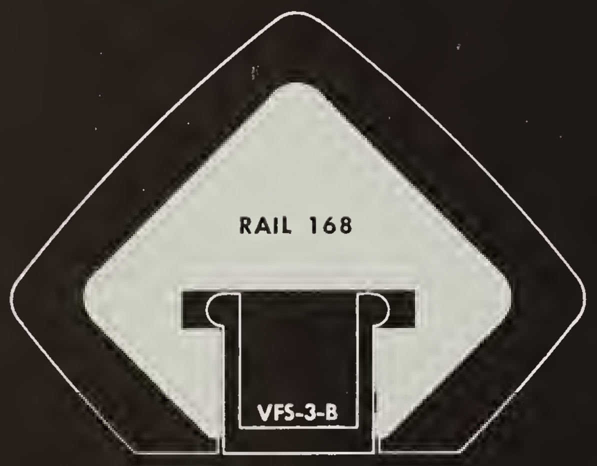
SCALE 3″=1′-0″


ADJUSTABLE SPACER 9050

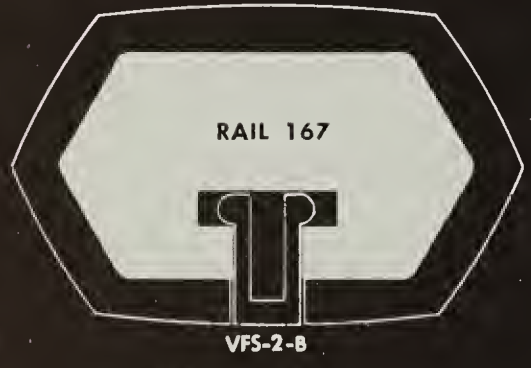
EXPANSION SHIELD


*TUBE-LINE
22-AL
HAND RAILS
AND POSTS

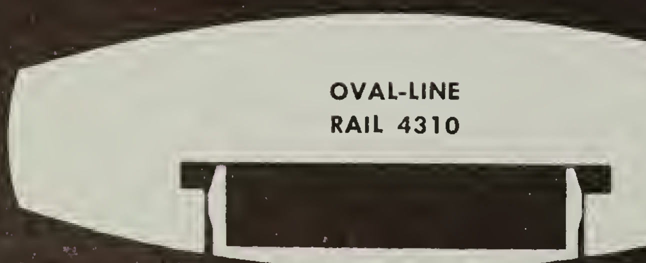
*SOLID INSERT 23-AL AVAILABLE FOR BENDING

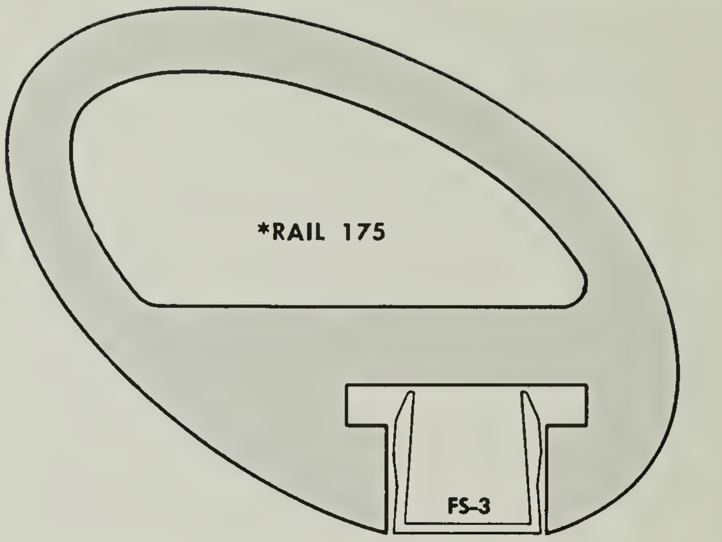

RAIL 168
VFS-3-B

VINYL GRIP V-168-B (BLACK VINYL)
VINYL GRIP V-168-W (WHITE VINYL)

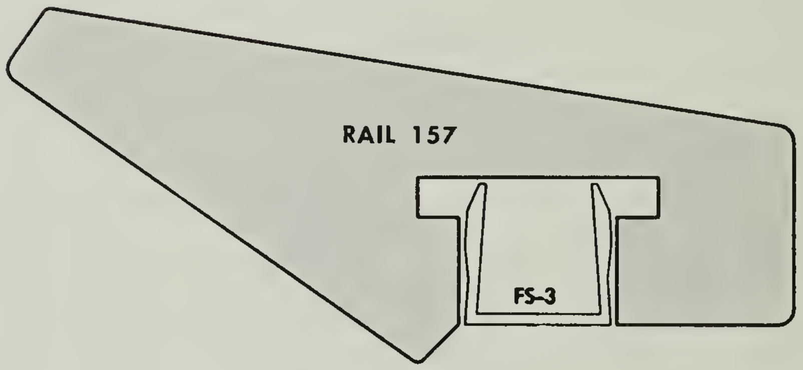

RAIL 167
VFS-2-B

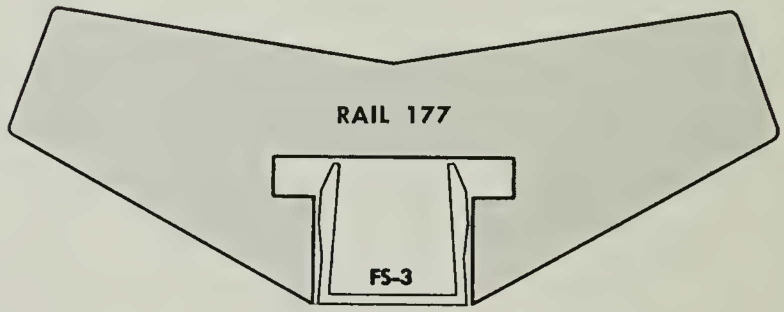
VINYL GRIP V-168-B (BLACK VINYL)
VINYL GRIP V-168-W (WHITE VINYL)

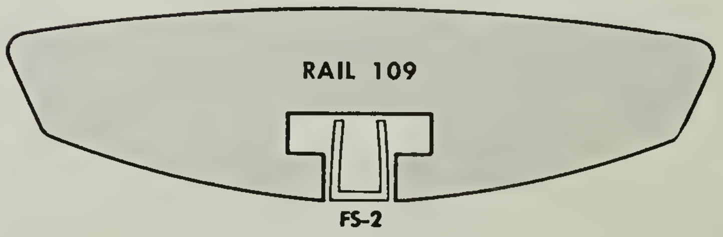

OVAL-LINE
RAIL 4310


*RAIL 175
FS-3

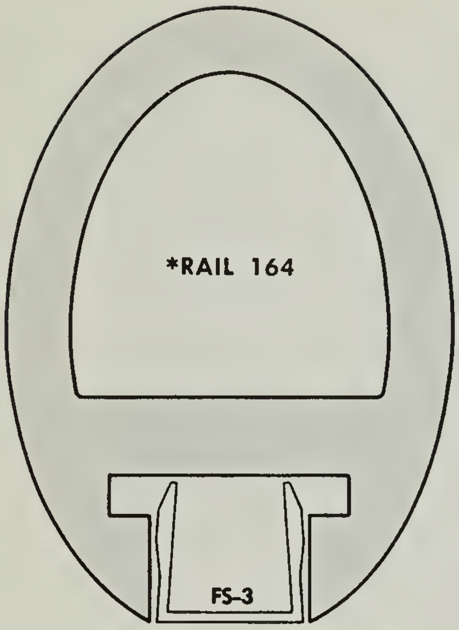
*SOLID INSERT 275 AVAILABLE FOR BENDING


RAIL 157
FS-3

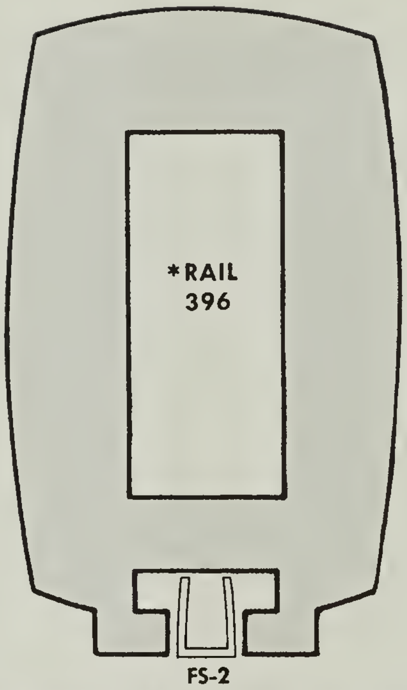

RAIL 177
FS-3


RAIL 109
FS-2

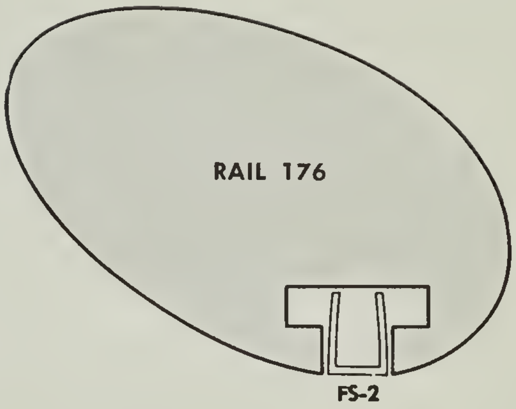
ALUMINUM HANDRAIL BARS FURNISHED IN

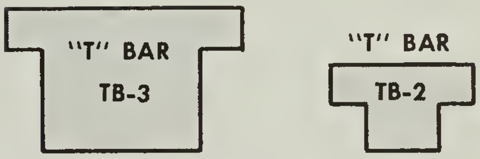

*RAIL 164
FS-3

*SOLID INSERT 274 AVAILABLE FOR BENDING

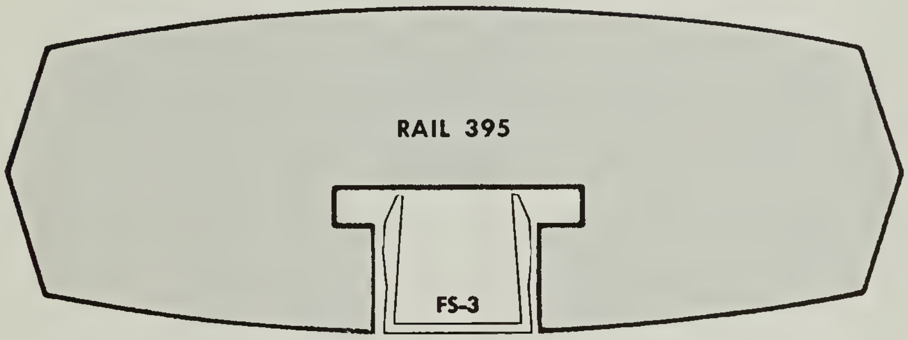

*RAIL 396
FS-2

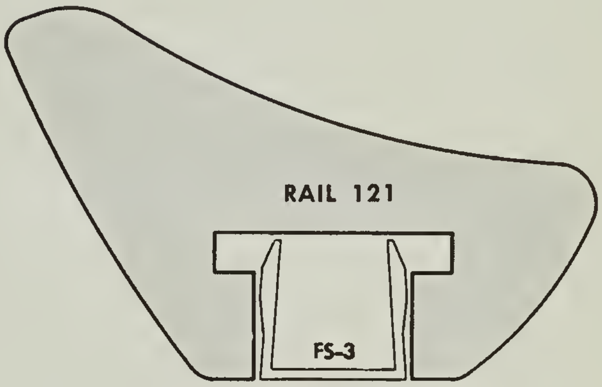
*SOLID INSERT 398 AVAILABLE FOR BENDING

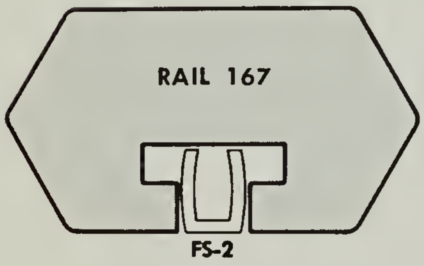

RAIL 176
FS-2

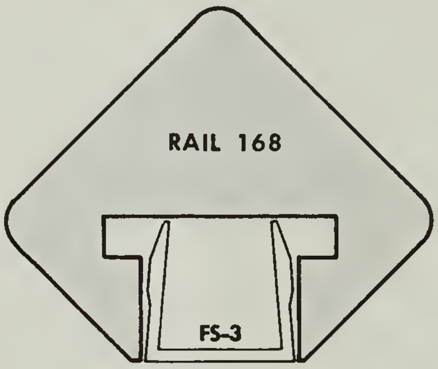

"T" BAR
TB-3
"T" BAR
TB-2

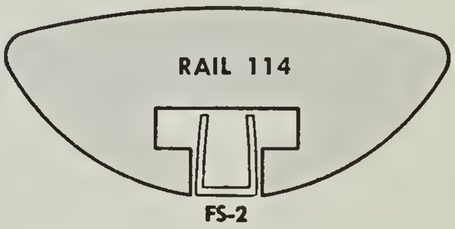
"T" SLOT INSERTS AVAILABLE FOR BENDING


RAIL 395
FS-3

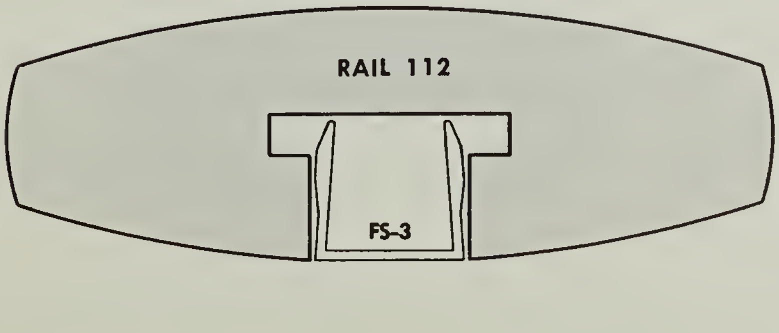

RAIL 121
FS-3

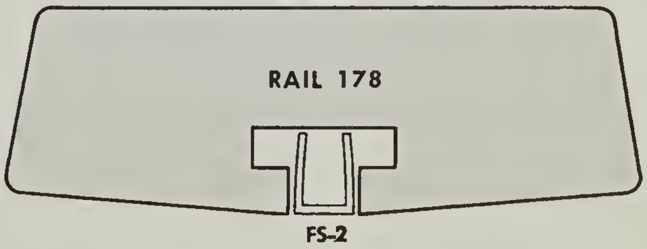

RAIL 167
FS-2


RAIL 168
FS-3

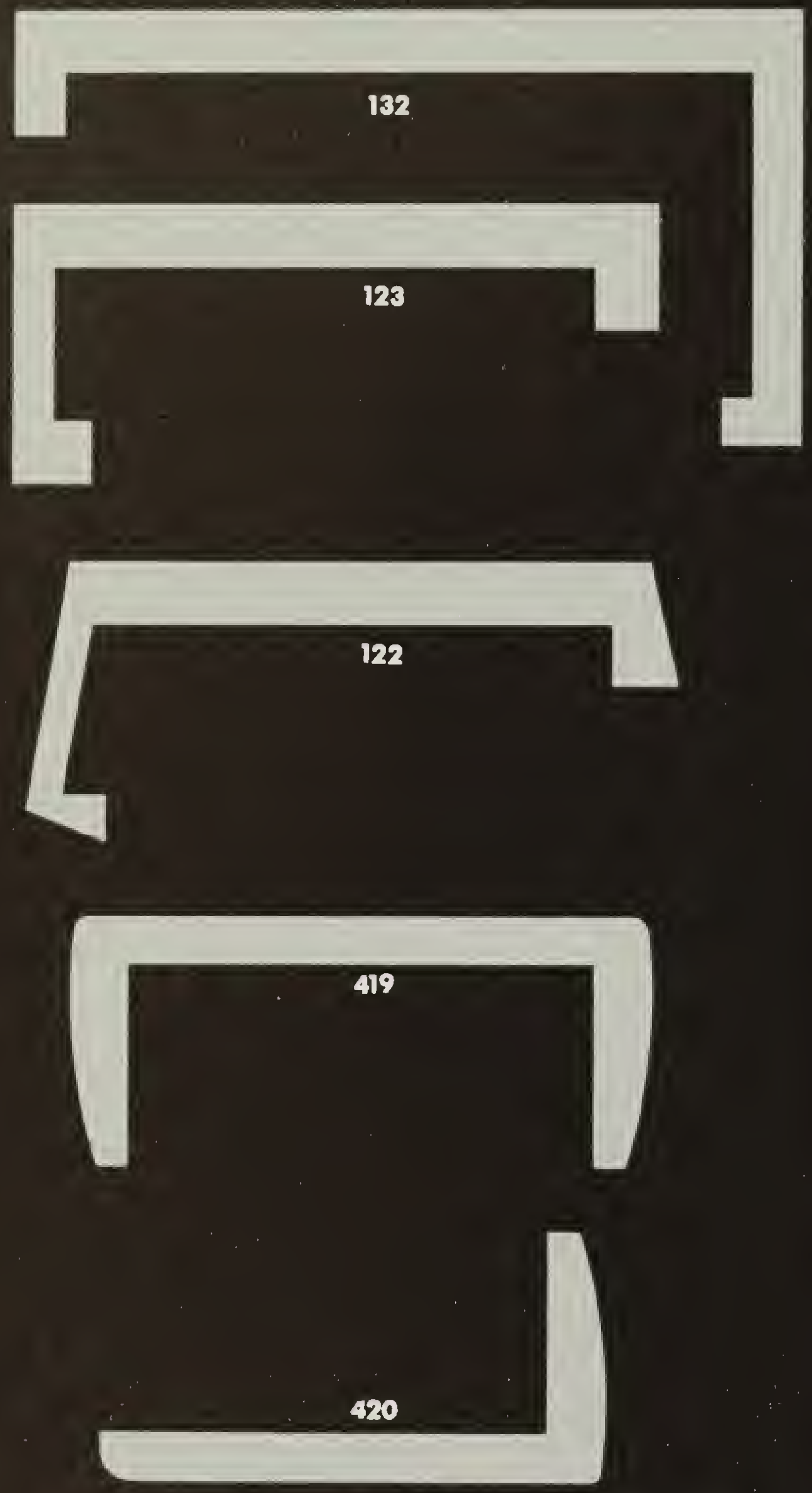

RAIL 114
FS-2

NOTE: 2'-0" MAXIMUM POST AND WALL BRACKET SPACING FOR 114 RAIL.

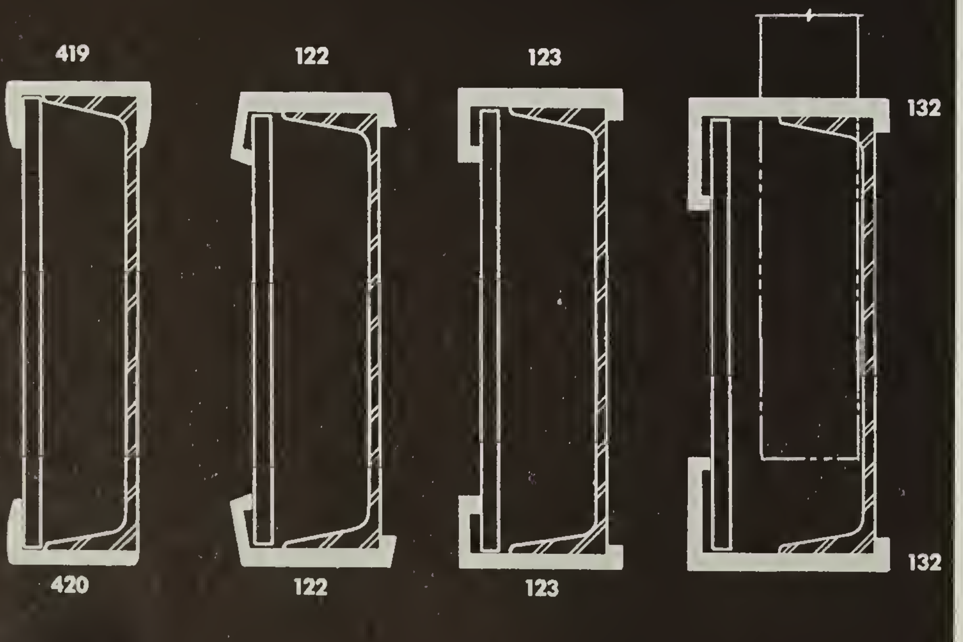

RAIL 112
FS-3


RAIL 178
FS-2

20'0" LENGTHS TO BE SHAPED AND FINISHED BY FABRICATOR.

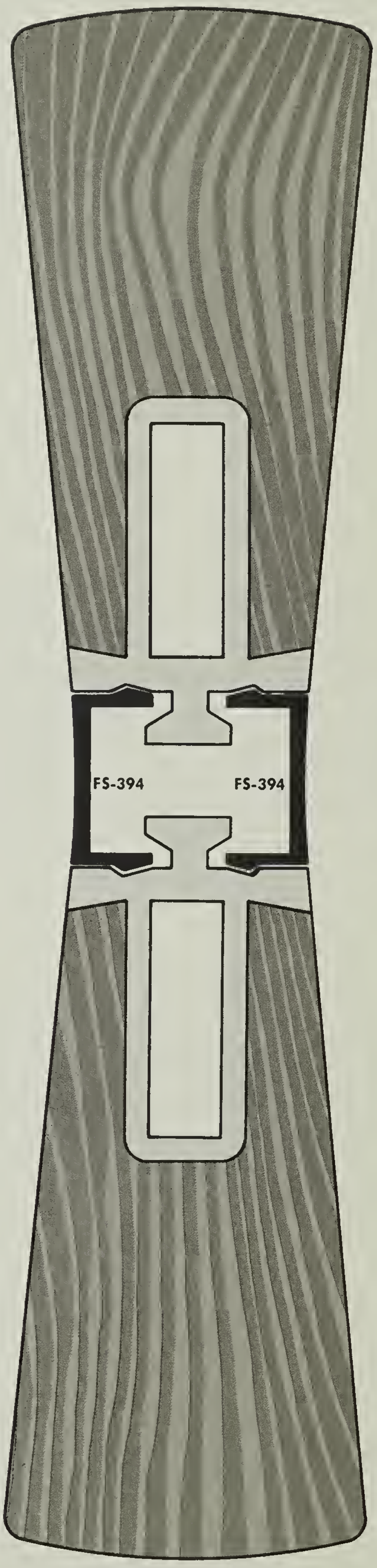

132
123
122
419
420

STRINGER CAPS FULL SIZE


419
122
123
132
132
420
122
123

FURNISHED IN 20'0" STOCK LENGTHS

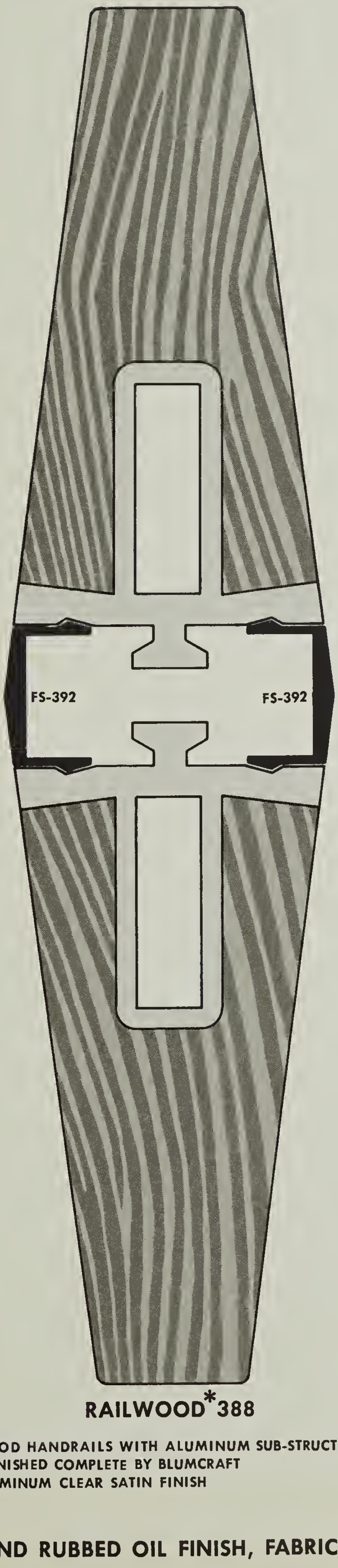
SCALE 3"=1'-0"


FS-394
FS-394

RAILWOOD*389

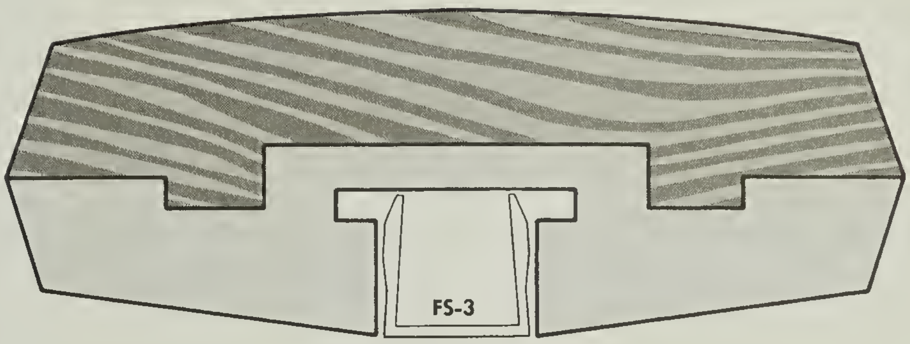
WOOD HANDRAILS WITH ALUMINUM SUB-STRUCTURES
FURNISHED COMPLETE BY BLUMCRAFT
ALUMINUM CLEAR SATIN FINISH
FILLER STRIP FS-394 BLACK ANODIZED

ALL WOOD FURNISHED IN SOLID WALNUT WITH



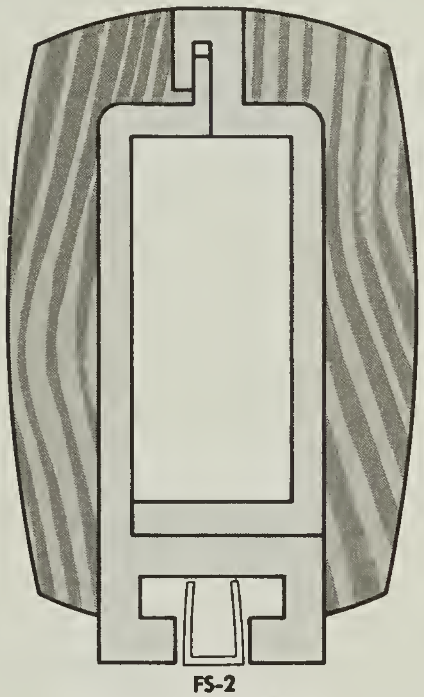
RAILWOOD*388

WOOD HANDRAILS WITH ALUMINUM SUB-STRUCTURES
FURNISHED COMPLETE BY BLUMCRAFT
ALUMINUM CLEAR SATIN FINISH



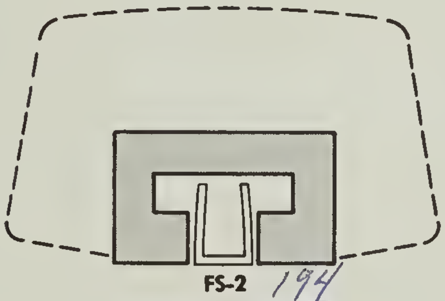
RAILWOOD*390

WOOD HANDRAILS WITH ALUMINUM SUB-STRUCTURES
FURNISHED COMPLETE BY BLUMCRAFT

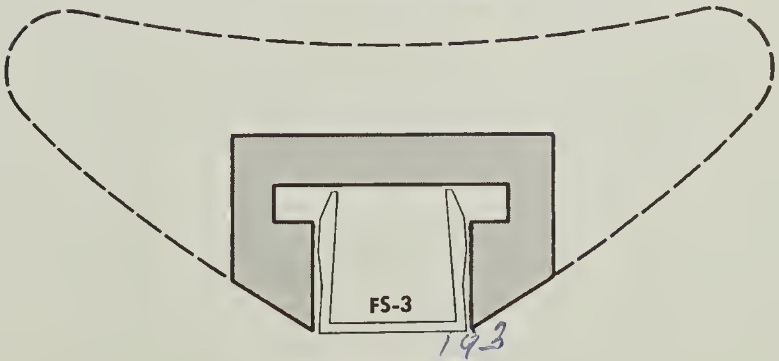


RAILWOOD*391

WOOD HANDRAILS WITH ALUMINUM SUB-STRUCTURES
FURNISHED COMPLETE BY BLUMCRAFT



SUB-RAIL ~~193~~ 194



SUB-RAIL ~~194~~ 193

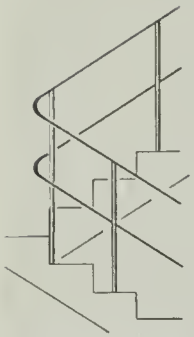
ALUMINUM SUB-RAILS 193 AND 194 FOR CUSTOM WOOD HANDRAILS
TO RECEIVE ADJUSTABLE AF-FITTINGS.

*NOTE: *BLUMCRAFT DOES NOT FURNISH CUSTOM WOOD HANDRAILS*

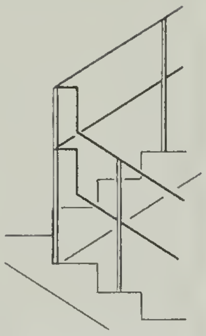
A HAND RUBBED OIL FINISH, FABRICATED BY BLUMCRAFT TO REQUIRED LENGTHS.

*TRADEMARK

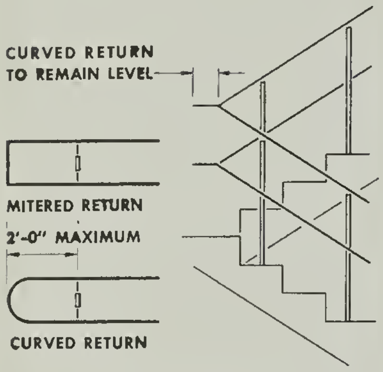
RAIL RETURNS



AVOID COMPLEX RETURNS AND COMPOUND BENDS

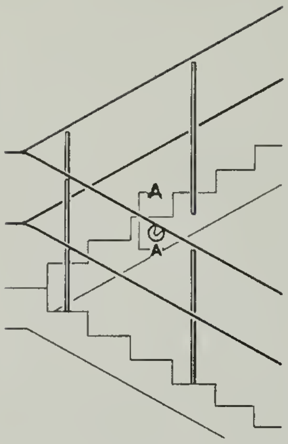


AVOID GOOSENECKS AND UNNECESSARY SPLICING



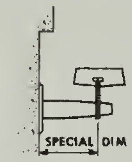
SUGGESTED METHOD

RAIL TIES



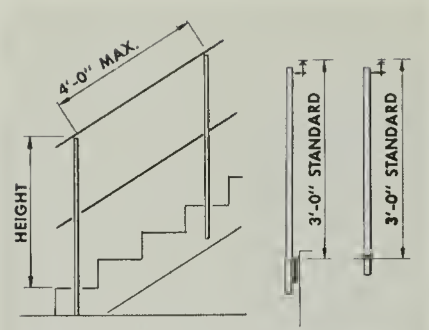
WB-WALL BRACKET FURNISHED IN SPECIAL LENGTHS TO AVOID JOGGLE OF WALL RAIL AND TO MAINTAIN FINGER CLEARANCE.

FOR ADDED RIGIDITY PROVIDE RAIL TIES WHERE HANDRAILS CROSS STRINGERS



SECTION A-A

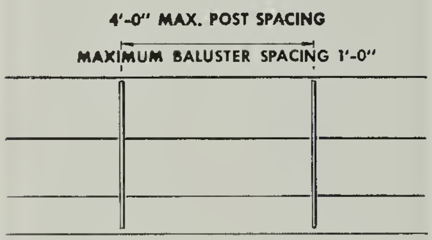
SPACING AND PROJECTIONS

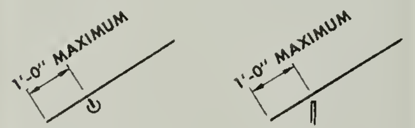


HEIGHT OF RAIL SHOULD BE INDICATED AT CENTER OF TREAD, NOT AT POINT OF RISE.

FOR EACH INCH EXCEEDING THE 3'-0" STANDARD HEIGHT OF RAILING DEDUCT 2" FROM THE 4'-0" MAXIMUM POST SPACING.

2'-0" MAXIMUM SPACING FOR 114 HANDRAIL.

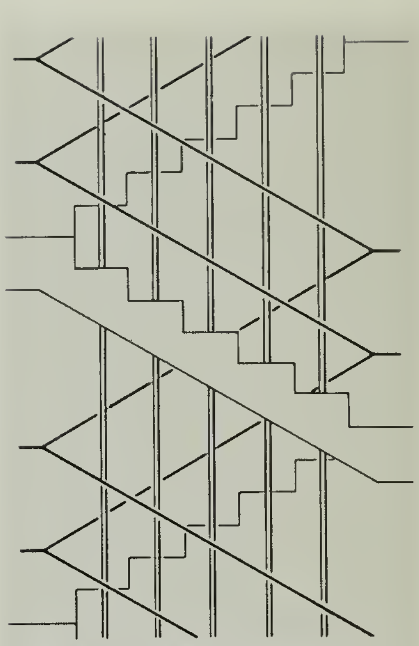




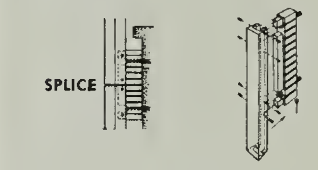
WALL BRACKET

POST

SM-57 AND SM-58 BRACKETS



SM-57 AND SM-58 BRACKETS USED ONLY WHEN POST CANNOT BE DOVETAILED VERTICALLY OVER BRACKET.

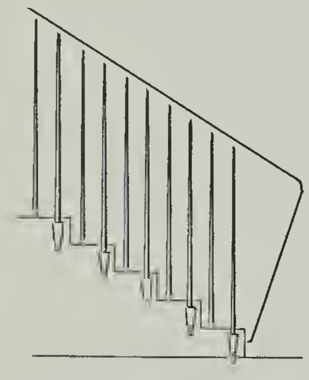


SPLICING POST AT BRACKET

NEW ARCHITECTURAL TELEPHONE REVIEW SERVICE BY "TECHNI-PHONE"

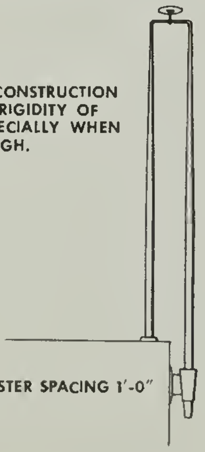
Architect's preliminary drawings reviewed within 48 hours by Blumcraft's technical engineering staff. Telephone recommendations will be made directly to the Architect, concerning railing construction and unusual problems. No formal letter is required, just the name and telephone number noted on the print with the word "review".

EXTRA HIGH BALUSTERS



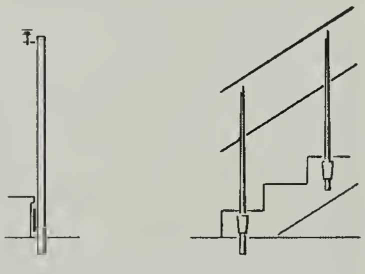
TO OBTAIN CLOSER SPACING USE TWO BALUSTERS PER TREAD, ONE SIDE-MOUNTED AND ONE TOP-MOUNTED.

THIS TYPE OF CONSTRUCTION ADDS TO THE RIGIDITY OF RAILINGS, ESPECIALLY WHEN OVER 3'-0" HIGH.



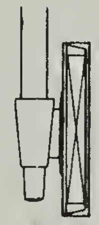
MAXIMUM BALUSTER SPACING 1'-0"

STARTING POST

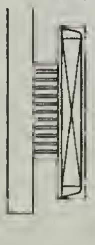


ALL STARTING POSTS INCLUDING THOSE WITH SIDE-MOUNTED BRACKETS SHALL EXTEND INTO FLOOR FOR ADDED RIGIDITY.

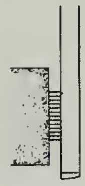
BOXED STRINGERS SHALL BE REINFORCED WITH STEEL BLOCKING AT EACH SIDE MOUNTING BRACKET.



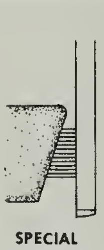
THE REINFORCED BLOCKING SHALL BE WELDED TO THE WEB OF THE STRINGER.



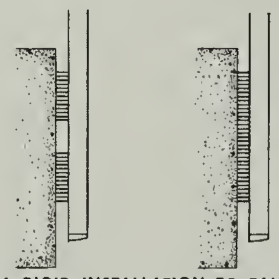
SIDE MOUNTINGS



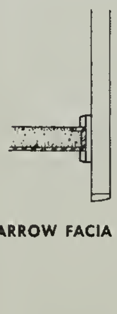
STANDARD FACIA



SPECIAL FACIA



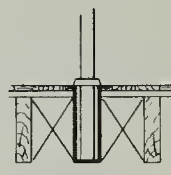
FOR A RIGID INSTALLATION TO TALL FACIA USE SPECIAL LENGTH BRACKETS.



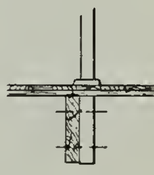
FOR FACIA UNDER 4" USE BLUMCRAFT ANCHORING SYSTEMS.

NARROW FACIA OR TREAD

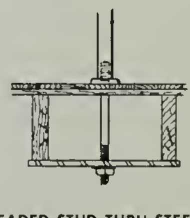
MOUNTING TO WOOD FLOOR



BUILT IN STEEL BOX FOR GROUTING



BOLTED THRU SIDE OF JOIST



THREADED STUD THRU STEEL PLATE

PARTIAL LIST OF FABRICATORS WHO HAVE BUILT BLUMCRAFT RAILINGS

NOTE: BLUMCRAFT COMPONENTS ARE AVAILABLE TO ALL METAL FABRICATORS WHO BUILD ALUMINUM RAILINGS. THERE ARE NO EXCLUSIVE FABRICATORS OF BLUMCRAFT IN ANY AREA, THUS PROVIDING COMPETITIVE BIDDING FOR BOTH PUBLIC AND PRIVATE WORK. POSTS, GRILLES AND BRACKETS ARE FURNISHED TO FABRICATORS COMPLETELY FINISHED. HOWEVER, HANDRAIL BARS ARE FURNISHED TO THE FABRICATOR IN A 100-GRIT PRELIMINARY FINISH ONLY. THE FABRICATOR IS REQUIRED TO BEND AND SHAPE THE HANDRAIL BARS AND APPLY THE SPECIFIED FINISH. IT IS SUGGESTED THAT FABRICATORS FORWARD THEIR SHOP DRAWINGS TO BLUMCRAFT FOR REVIEW AND RECOMMENDATIONS PRIOR TO SUBMISSION TO ARCHITECT FOR APPROVAL.

ALABAMA

Anniston	Bob Purser Steel Fabricator Inc.
Birmingham	Art Iron Works Best Iron Works B & M Steel Co. Birmingham Ornamental Iron Co. Dixie Fabricating Company Inc. Eversole Steel Company, Inc. Ferro Fabricating Company, Inc. United Iron Works Company, Inc.
Decatur	Decatur Iron & Steel Company Willo Products Company
Gadsden	Majors Ornamental Iron Company
Mobile	Goodbrad Ornamental Iron Company
Montgomery	Burt Boiler Works Gamble's Hartley Boiler Works
Phenix City	Barbee Fixture Mfg. Company
Pinson	Sivley's Art Craft Iron Co.
Tarrant	Thompson Fabricating Co.

ARIZONA

Mesa	Kelly Steel & Construction Co.
Phoenix	Acme Steel Company Allison Steel Manufacturing Co. Arizona Ornamental Iron Works, Inc. Pioneer Steel & Manufacturing Co. Reppel Steel & Supply Co. Techni-Builders, Inc.
Tucson	Kasper-Hall Steel Corporation

ARKANSAS

Fort Smith	Fort Smith Structural Steel Company
Little Rock	Herman Binz & Sons Iron Works Southern Machine & Iron Works
Texarkana	Carpenter Welding Company

CALIFORNIA

Azusa	Structural Engineering Co.
Chula Vista	Bannister Steel, Inc.
Costa Mesa	Smith Brothers Company
Covina	Fuller-Trimview
Fresna	Valley Aluminum Company
Garden Grove	Cundiff Steel Fabricators
Los Angeles Area	Allied Sheet Metal Fabricating, Inc. Atlas Ornamental Iron Works A. J. Bayer Company Cochran-Izant Company Conway Metalcraft Company Cowelco Crager Iron Works Grano Steel Corporation Jackson Iron Works, Inc. Lee & Daniel Steel Fabricators Meridian Iron Works Martin Nagy Campany Schmidt Fabricators Selak Iron Works, Inc. Washington Ornamental Iron Works Western Iron & Metal Company Western Ornamental Iron Works
Monterey	Kirby-Lowe Iron Works
Oakland	Romak Iron Works C. E. Toland & San
Pacoima	Far West Steel Fabricators
Palo Alto	Azco Aluminum Fabricatars
San Bernardino	San Bernardino Steel & Machine Co.
San Diego	Acme Ornamental Iran Works Atlas Iron & Wire Works Balboa City Iron Works Custom Bronze & Iron Works El Cajon Iron Works Standard Iron Works
San Francisco	Fair Manufacturing Company Iron Fabricators, Inc. F. Kern & Sons Iron Works Michel & Pfeffer Iron Works, Inc.
San Jose	Cascade Metals Corp. Engfer Iron Works
San Leandro	San Lorenzo Manufacturing Company
San Rafael	Victor's Iron Works, Inc.
Santa Ana	Miller Iron Works Wise Welding Works, Inc.
Santa Fe Springs	Delta Steel
South El Monte	Wellman Fabricators, Inc.
South Gate	Phillips Metal Letter & Mfg. Co.

COLORADO

Colorado Springs	Jardon & Knight Welding
Denver	Aladdin Iron & Steel Corp. Allied Steel Company August Friedrichs Company Dufficy Iron Works United Steel & Iron Works Co. W. G. Zimmerman Arch. Metals, Inc.
Englewood	Metal Fabricators, Inc.

CONNECTICUT

Bridgeport	Chase Iron & Forge Handcraft Ornamental Iron Works Manis Metal Works Trio Industries, Inc.
Fairfield	The George H. Olson Steel Company
Glenbrook	Stamford Iron & Steel Works, Inc.
Hamden	Kramer Iron Works
Hartford	Yale Welding Company
Meriden	Charles Parker Campany
Naugatuck	Ramos Iron Works, Inc.
New Haven	New England Iron Works Inc.
Newington	National Steel Fabricators, Inc. Standard Structural Steel Company
New London	Thames Valley Steel Corporatian
Norwalk	The Nelson Welding Company
Stamford	Builders Iron Works
Thompsanville	The Calonial Iron Shop
Waterbury	Waterbury Iron Works, Inc.

DELAWARE

Wilmington	Paneltrol Company Savery & Caoke, Inc.

D. C.

Washington	Acme Iron Works Geis Iron Works Fred S. Gichner Iron Works Union Iron Works Washington Stair & Ornamental Iron Wks.

FLORIDA

Bartow	Southeastern Sales & Service Co.
Clearwater	The Standard Fabricated Products Co.
Clermont	Konsler Steel Company
Cocoa	Wrought Iran Craftsmen Company
Deland	The Olson Corp.
Fort Lauderdale	Flemming & Smith Inc. L. & M. Metals
Jacksonville	W. H. Davis & Company Jacksonville Miscellaneous Iron Works Jacksonville Ornamental Iron & Metal Smith Steel Construction Company Southern Steel Construction Co., Inc.
Miami	Anvil Iron Works, Inc. Biscayne Metal Fabricators Bohnert Sheet Metal & Roofing Co., Inc. Dade Metal Fabrications, Inc. Giffen Industries I. E. Frank, Inc. Metallic Engineering Company Skinner Ornamental Iron Works John Stamford & Sons Trop-x Corp.
Oakland Park	Riley's Ornamental Iron Shop
Orlando	Colonial Wrought Metals S. R. Davis Mid-Florida Steel Corp.
Pompano Beach	Cochran & Cribby Co.
St. Petersburg	Downing's Forge Pinellas Machine Company, Inc. Southern Iron Works
Tallahassee	Cox Steel & Supply, Inc.
Tampa	Florida Steel Corp.
West Palm Beach	Reich Metals, Inc. Service Iron, Inc. Tolliver Aluminum Service

GEORGIA

Albany	Divine's Machine Works Lewis Martin Steel Company
Atlanta	Golian Steel & Iron Company R. F. Knox Company, Inc. Metal Fabricators , Inc. Universal Steel Inc.
Augusta	Macuch Steel Praducts, Inc.
Columbus	Sauls Machine Shop Wilmark Steel Company
Macon	Bibb Steel & Supply Company Taylar Iron Works & Supply Company
Savannah	Colonial Iron Works, Inc. Savannah Iron & Wire Works, Inc.
Stone Mountain	De Kalb Metal Fabricators Company
Tucker	Artsteel Structural Contractars Georgia Bridge & Iron Co., Inc. State Ornamental Iron Works, Inc.

HAWAII

Honolulu	Lewers & Cooke

IDAHO

Boise	Hobsan-Foster Manufacturing Corp.
Pocatella	S. & A. Fabricating Co.
Twin Falls	Self Manufacturing Co., Inc.

ILLINOIS

Chicago Area	Aetna Engineering Works American Bronze Company B & J Welding Company Builders Ornamental Iron Company Chicago Ornamental Iron Company Clonick Steel Company Columbia Iron Works, Inc. David Architectural Metals, Inc. Dorwin Architectural Metals Fischer's Ornametals, Inc. Fisher Metal Products Inc.

	Frank's Architectural Iron Works
	Gerber Ornamental Iron Works
	Henry E. Gremp Company
	Illinois Bronze Works
	Industrial Architectural Iron Co.
	Johnson-Meler Company
	Johnston Iron Works, Inc.
	Morris Kurtzon Inc.
	Lichtenwald Iron Works Company
	Metal Craft Constructors, Inc.
	Mid-City Architectural Iron Co.
	Mid-West Iron Works, Inc.
	M & W Iron Works
	New City Iron Works
	Rosman Iron Works, Incorporated
	Ralph H. Simpson Company, Inc.
	South Shore Iron Works
	South Side Iron Works
	Special Architectural Metal Co., Inc.
	Sternberg Mfg. Co.
	M. J. Strnad Sons & Company
	Tardio & Sons
	Titan Ornamental Iron Works, Inc.
	Western Architectural Iron Company
	Western Wire & Iron Works
	Woodbridge Ornamental Iron Company
Decatur	Architectural Iron Works
	Ornamental Metalworks Company
Joliet	Joliet Engineering Company, Inc.
Kankakee	Kankakee Welding & Supply
Metropolis	Southern Illinois Steel Products Corp.
Peoria	A. Lucas & Sons
Rockford	Architectural Iron, Inc.
	Metal Fabricators, Inc.
Rock Island ...	Walter Foster & Son
Skokie	Fidelity Ornamental Iron
South Beloit ...	Beloit Bridge & Iron Company
South Holland..	Shelco Steel Works Inc.
Springfield	De Wall Ornamental Iron Works
	Fehring Iron Works
Sterling	A. E. Bogott & Sons
Villa Park	Morse Manufacturing Co.
Waukegan	Waukegan Architectural, Inc.
	Waukegan Steel Sales Company

INDIANA

Evansville	International Steel Company
	George L. Mesker Steel Corp.
Fort Wayne....	Bentz Metal Products Company
	Fab-Weld, Inc.
Gary	Gary Welders
Indianapolis ..	Hugh J. Baker & Co.
	Emrok Metal Products Corp.
	Enterprise Iron & Fence
	General Steel Fabricating Company
	Hoosier Fence Company Incorporated
	Standard Steel Mfg. Co.
	Tuttle Aluminum & Bronze Inc.
La Grange	Kehr Iron Works
Mishawaka ...	Steel Fabricating Division Midland Corp.
South Bend....	Fabricated Steel Prods. of Indiana, Inc.
St. John	Pierce Iron Works
Terre Haute ...	E. T. Hazledine Company

IOWA

Boone	Mid-States Steel Corporation
Cedar Falls	I & E Grosse Company, Inc.
Cedar Rapids ..	Metal Crafters
Chariton	Johnson Machine Works
Council Bluffs..	Katelman Foundry & Manufacturing Co.
Davenport	Building Products Company
	Riverside Architectural Metal Co.
Des Moines....	Venetian Ornamental Iron Works
Dubuque	Bradley Iron Works
Sioux City.....	Haakinson & Beaty Company
	Missouri Valley Steel Company
Waterloo	Waterloo Steel & Equipment Division

KANSAS

Kansas City....	Kaw Valley Steel Company
Leavenworth ..	Missouri Valley Steel, Inc.
Merriam	Grandview Steel Company
Olathe	Johnson Steel Co., Inc.
Topeka	Capital Iron Works Co.
	Topeka Foundry & Iron Works Co.
	Western Foundry & Machine Works
Wichita	Architectural Art Manufacturing Co.
	George C. Christopher & Son
	Mead Manufacturing Company

KENTUCKY

Erlanger	Michaels Art Bronze Company, Inc.
Lexington	Paul O. Schubert Co.
Louisville	Champion Wire & Iron Works
	Cumberland Metals, Inc.
	Logan Company
	Metallic Art Works
	Steel Fabricators, Inc.

LOUISIANA

Alexandria	Flynn Manufacturing Company
Baton Rouge...	Webre Steel Company
Hammond	Morrison Iron Works
New Orleans...	Metal Building Products Co., Inc.
	Orleans Materials & Equipment Co., Inc.
	Perez Iron Works
	Superior Cabinet Works
	Victory Iron Works, Inc.
Shreveport	Mosher Steel Co. of Louisiana, Inc.
	Southern Steel Co. of Louisiana
Sulphur	Endicott-Stagg Ornamental Metals
Zachary	Reddy Fabricators, Inc.

MAINE

North Berwick..	Hussey Mfg. Co., Inc.
Portland	Megquier & Jones Corp.

MARYLAND

Baltimore	A. Amereihn & Company
	Baltimore Steel Company
	Dauphin Fabricators, Inc.
	Derby Steel Company
	Dietrich Brothers, Inc.
	Ornamental Iron & Brass Company
	Protzman Brothers, Inc.
	Southern Metalcraft, Inc.
	Steiner-Fulton Co.
	Sturdee Metal Products Co.
Bladensburg ..	American Iron Works, Inc.
	Criss Brothers & Company
Glen Arm......	W. K. Simon Co.
Glen Burnie....	Liskey Aluminum, Inc.
Hagerstown ...	Central Mfg. & Welding Works, Inc.
Hyattsville	Potomac Metal Products, Inc.
Salisbury	Salisbury Steel Products, Inc.

MASSACHUSETTS

Boston Area....	Albany Iron Works Inc.
	American Architectural Iron Company
	Babcock-Davis Associates, Inc.
	Bay State Brass Rail Company
	Boston Ornamental Iron & Bronze
	Brayton-Wilson-Cole Corp.
	Builders Iron Works
	Quincy Ornamental Iron Works
	Railmark Corp.
	E. T. Ryan Iron Works, Inc.
	Security Steel & Wire Works, Inc.
	E. Van Noorden Company
	West End Iron Works
	A. O. Wilson Structural Company
Chicopee	Fernandes Welding, Inc.
Easthampton ..	Johnson Metal Products Co.
Fall River	John E. Cox Company, Inc.
Lynn	North Shore Steel Company, Inc.
Malden	E. K. Carpenter Assoc., Inc.
	Novel Iron Works, Inc.
North Quincy ..	Carlson Metalcraft Co., Inc.
Quincy	L. Antonelli Iron Works, Inc.
Springfield	H. F. Elwell Iron Works, Inc.
	Ornamental Iron Shop, Inc.
Watertown	Standard Steel & Iron Works, Inc.
Westfield	The Haggartys
Worcester	Stafford Iron Works, Inc.
	United Structural Steel Company

MICHIGAN

Bay City	Ponder Iron Works
Detroit	A. M. Art Metal, Inc.
	Aluminum & Architectural Metals
	Builders Aluminum Company
	Heltzel Fabricating Company
	Midwest Architectural Metals Company
	Ornamental Iron & Stair Company
	Redford Railing Company
	Special Fabricators, Inc.
East Lansing...	Hale's Forge, Inc.
Escanaba	F. D. Vinette Co.
Flat Rock	Moynahan Bronze Company
Flint	Flint Iron & Wire Works
	Rohmann's Ornamental Iron Works
	The Zack Company
Grand Rapids..	Van Dam Iron Works
Grandville	Haven-Busch Company
Jackson	K. Patton Ornamental Iron
Kalamazoo	Kalamazoa Foundry & Machine Company
Royal Oak.....	Special Fabricators, Inc.
Saginaw	Harris & Fischer Iron Works
	Koehler Brothers Steel Works
	Lee Iron Works
	Saginaw Steel & Iron Works, Inc.
Union City	Griswold Machine & Engineering Co.
Warren	W. P. Hickman Co.
Ypsilanti	Ypsilanti Steel Fabricators

MINNESOTA

Austin	Hill Heating & Roofing Inc.
Duluth	Duluth Steel Fabricators, Inc.
Hibbing	Lindburg-Maddison Company
Minneapolis ..	Anderson Iron Works, Inc.
	Artistic Iron Works, Inc.
	Baker Iron Company
	Crown Iron Works
	Flour City Ornamental Iron Co.
	C. W. Olson Manufacturing Co.
	Soley Iron Works
	Standard Iron & Wire Works
	Stanley Iron Works, Inc.
	Star Iron Works
St. Paul.......	Empire Steel, Inc.
	Linders Fabricating & Mfg. Co.
	Minnesota Fence & Iron Works, Inc.
	Paper, Calmenson & Company
	St. Paul Statuary Company
	George Shetka & Sons

MISSISSIPPI

Jackson	City Steel Company, Inc.
	Howell Steel Co.
	Metal Trims, Inc.
	Westbrook Manufacturing Company
Meridian	Tucker Steel Co., Inc.

MISSOURI

Joplin	Ozark Engineering Company
Kansas City	Art Iron Works
	Bratton Corp.
	Builders Steel Company
	Havens Structural Steel Company
	Livers Bronze Company
	Mid-States Ornamental Iron Company
	Southwest Ornamental Iron Company
St. Joseph	A & A Welding Co.
St. Louis	Al-Bro Manufacturing Company
	Architectural Bronze Studio Inc.
	Banner Iron Works
	Chester Iron & Foundry Company
	Columbia Iron Works, Inc.
	International Metal Products Company
	Kupferer Brothers
	Mississippi Valley Structural Steel Co.
	Modern Metals Corporation
	Usona Manufacturing Company
	Victor Iron Works
	Wania Ornamental Wire & Iron Co.
Springfield	Acme Structural, Inc.
	Paul Mueller Company

MONTANA

Billings	Montana Steel & Supply Company
	Northland Steel Company
Helena	Caird Engineering Works
Kalispell	Rolies Machine Works
Missoula	Culbertson & Chaffey, Incorporated

NEBRASKA

Hastings	Aluminum Fabricators Division of Hastings Irrigation Pipe Fittings
Lincoln	Lincoln Steel Corp.
	Midwest Steel Works, Inc.
Omaha	Gate City Steel, Inc.
	Menke Ornamental Iron Company
	Northwestern Steel & Supply Co.
	Omaha Steel Works
	Paxton & Vierling Steel Company
	Sterling Electric Company
	Woerner Wire Works
Scottsbluff	B. & C. Steel Products Company

NEVADA

Las Vegas	Las Vegas Machine, Inc.
	Lincoln Welding Works, Inc.
	Precision Machine & Construction Co.
	Taylor Steel Company

NEW HAMPSHIRE

Manchester	Lyons Iron Works, Inc.

NEW JERSEY

Atlantic City	Brandenberger Iron Co., Inc.
	Henry S. Speed
	Peter Stewart
Barrington	Schmidt & Sons
Blackwood	Lamount Metals Co.
Camden	Anvil Iron Works
	Camden Architectural Metals, Inc.
Carlstadt	Bergen Iron & Engineering Co., Inc.
Elizabeth	Elizabeth Iron Works, Inc.
Glendora	J. B. Metal Products
Hillside	Buie Steel Corp.
	Interstate Iron Works
Jersey City	Hudson Structural Iron Works, Inc.
	Liberty Iron Works, Inc.
Kenilworth	Allied Steel Products Corp.
Layton	Winans Engineering & Mfg. Corp.
Little Ferry	Architectural Iron Works, Inc.
Long Branch	Electronic Associates Inc.
Millville	Delsea Iron Works, Inc.
Orange	Orange Forge Inc.
Passaic	Minkov Steel & Iron Works
Paterson	J. W. Fiske Architectural Metals, Inc.
Ridgefield	Joseph Moreng Iron Works
Swedesboro	Swedesboro Ornamental Iron Works
Trenton	Industrial Engineering Works
	Keystone Structural Steel Company
	Vernon Fabricating Company
Wallington	Eastern Aluminum Railing Co.
West Belmar	Wolek Ornamental Iron Works
Westmont	Caya Metal Fabricators
West New York	Selbach-Meyer Company

NEW MEXICO

Albuquerque	Ball Metal Products Company
	Walter B. Gilbert
	Rio Grande Steel Products Company

NEW YORK

Albany	James McKinney & Son
	West End Iron Works
Binghamton	Titchener Iron Works, Inc.
Buffalo	Buffalo Ornamental Iron Works, Inc.
	Colonial Iron Works
	Community Steel Corporation
	Contractors Ornamental Steel Co.
	Dunn Welding Company, Inc.
	Seaway Iron Works
	Seneca Welding Co., Inc.
	Tobal Iron Works
	Waldheim Ornamental Iron Works
Ellenville	Ellenville Iron Works Co.
Frankfort	Midstate Steel & Iron Fabricators
Geneva	Vance Boiler Works, Inc.
Gouveneur	Gouveneur Iron Works
	Riverside Iron Works
Ithaca	Ames Welding & Supply Company
Jamestown	Ellison Bronze Co., Inc.
	Jamestown Fabricated Steel Inc.
Kenmore	The William J. Samcoe Iron Co.
Manlius	La Cour-Cameron Company, Inc.
Mattydale	Steve's Welding Service
Mount Vernon	Brass & Bronze Specialty Co., Inc.
	Rubin & Cohen Iron Works, Inc.
	United Iron and Steel Fabricators
New Rochelle	John T. Brady & Co., Inc.
	Joseph Charla Iron Works
	G. Zaffino & Sons, Inc.

NEW YORK CITY AREA

Bronx	Bronx Metal Products Co.
	Concord Iron Works
	A. Perlman Iron Works
Brooklyn	Bedford Iron Works
	Bronze Craft, Inc.
	Century Store Fronts, Inc.
	Concord Metal Store Fronts Company, Inc.
	A. J. Fritschy Corp.
	Hershan Brothers
	Hygrade Iron Works, Incorporated
	Kent Steel Fabricating Corp.
	Martin Katz Corporation
	Ment-Alco, Inc.
	Julius Mock & Sons, Inc.
	New Star Brass & Bronze Works
	Utility Brass & Bronze Company
L. I. Nassau	Glen Cove Welding & Iron Works, Inc.
	Levitt Brothers
	Liberty Ornamental Metals Corp.
	Nassau Iron Works, Inc.
	National Bronze Corp.
	Roman Iron Works, Inc.
	Roslyn Metal Craft
	Shur-Fit Metal Products Corp.
L. I. Queens	Adler & Nielson Co., Inc.
	Allied-Superb Bronze Corp.
	Architectural Bronze Corp.
	Armet Architectural Metals Corporation
	Atlantic Iron Works
	Berson Berleth, Inc.
	Craft Architectural Metals Corp.
	Devoe Iron Works
	Empire City Iron Works
	Fentron Architectural Metals Corp.
	General Bronze Corporation
	Master Iron Craft Corporation
	Mid-Island Steel Fabricators
	Stephen Oderwald, Inc.
	Herbert A. Penner & Co.
	Sexauer & Lemke, Inc.
New York City	Abbott Iron Works
	Able Metalcraft Co., Inc.
	Dayton Metal Products Co.
	East Coast Wrought Iron Craftsmen, Inc.
	Eschen Steel & Iron Works Company, Inc.
	Fassler Iron Works, Inc.
	J. W. Fiske (Paterson, N. J.)
	Grossman Steel Stair Corporation
	Haber & Henry, Inc.
	Hoffman Iron Works
	Sherry & Sons Steel Corp.
	West Farms Iron Works, Inc.
Port Chester	County Iron Works of Westchester Inc.
	Port Chester Iron Works, Inc.
Poughkeepsie	Poughkeepsie Iron & Metal Co., Inc.
	Poughkeepsie Steel Products
Rochester	Art In Iron Co.
	Bereza Iron Works, Inc.
	Guarantee Iron Works
	Young's Wrought Iron Works
Rome	Mokry Iron Works
	Rome Iron Mills, Inc.
Schenectady	General Steel Fabricators, Inc.
	Schenectady Steel Company, Inc.
South Fallsburg	Fallsburg Iron Works, Inc.
Syracuse	Heckerman Iron Works
	Paliotta Iron Works, Inc.
	Smith & Caffrey Steel Company, Inc.
	Syracuse Stair & Iron Works
	Thelen Iron Works, Incorporated
Troy	Reo Welding Company
Utica	McCoy Iron, Inc.
	York Iron Works
Watervliet	West Side Structural Co., Inc.
White Plains	Westchester Steel Products Company

NORTH CAROLINA

Asheville	Asheville Steel & Salvage Company
Charlotte	Maynor Ornamental Iron & Steel
	Mitchell & Becker Company
	Soule Steel & Iron Company
	Southern Engineering Company
	Steel Fabrications, Inc.
	Wade Manufacturing Corporation
Goldsboro	Metalcrafters of Goldsboro

Continued

FABRICATORS (Continued)

Greensboro . . .	Walker Iron Works
	J. D. Wilkins Company
Hickory	Hickory Steel & Iron Company
Raleigh	Peden Steel Company
Wilmington . . .	Queensboro Steel Corporation
Winston-Salem .	Salem Steel Company

NORTH DAKOTA

Fargo	Fargo Foundry Company

OHIO

Akron	Oehler Steel Company
	The Ornamental Iron Work Company
	Portage Iron & Wire Company
Amlin	H. J. Upperman & Sons, Inc.
Ashtabula	Arthur Louis Steel Company
Bedford Heights	Russo Ornamental Iron Products, Inc.
Bellefontaine . .	Carter Steel & Fabricating Company
Canton	A. G. Stafford Company
Cincinnati	Davis & Siehl Company
	Newman Brothers, Inc.
	Reliance Art Metal Company
	Southern Ohio Fabricators
Cleveland	Artcraft Metals
	Builders Structural Steel Corp.
	Charles Haas Company
	Handcraft Metal Shops, Inc.
	A. H. Marty Company
	Mooney Iron Works Company
	Park Iron & Welding
	Rose Iron Works
Columbus	Colbra, Inc.
	Columbus Ornamental Iron
	J. T. Edwards Company
Dayton	Dayton Fabricated Steel Co.
	Dayton Ornamental Iron Company
	Andrew Plocher Sons Company
Galion	Weithman Brothers, Inc.
Hamilton	L & J Specialty Corporation
Hubbard	Metalcrafts, Inc.
Ironton	Meehan Steel Products Company, Inc.
Kenton	Downey & Keller Iron Works
	Kenton Structural & Ornamental Iron
Mansfield	Mansfield Structural & Erecting Co.
	Miller Ornamental Iron Company
Sandusky	Mack Iron Works Company
Toledo	Art Iron & Wire, Inc.
Youngstown . . .	Federal Iron Works Company
	Youngstown Ornamental, Inc.

OKLAHOMA

Oklahoma City.	Brown Manufacturing Company
	Virgil Greene Company
	Guildcraft Metal, Inc.
	Robberson Steel Company
	W & W Steel Company
Tulsa	ST-AL Fabricators Company
	Zephyr Awning & Iron Company

OREGON

Portland	Atlas Ornamental Iron Works
	Northwest Tube & Metal Fabricators
	Portland Wire & Iron Works
	R. & J. Metal Fabrication Company

Salem	Salem Metal Fabrication Co.
	Stevens Steel & Equipment Company

PENNSYLVANIA

Allentown	Azar Iron Works
Bethayres	Keystone Wire & Iron Works, Inc.
Bethlehem	Bethlehem Fence Works, Inc.
	Bethlehem Iron Works
Bradford	W. D. Fisher
Bryn Mawr	George W. Hitchens Company
Butler	Ripper Iron Works
Chester	J. Joyce & Sons
Drums	Waskovich Iron Works
Erie	Henry Althof's Sons Company
	Faulkner Bros. Ornamental Iron Works
Gettysburg	Simpson Steel Products Company
Glenside	Northern Iron Works
Greensburg	Crafted Metals, Inc.
	Moore Metal Manufacturing Company
Johnstown	Griffith-Custer Steel Company
	Sender Ornamental Iron Company
Kingston	Ostrander Iron Works, Inc.
Lancaster	High Welding Company
	Lancaster Welded Products
	A. B. Rote & Co.
Lansdale	Fairview Iron Works
	Valley Forge Metals Corp.
Lebanon	Miles T. Weaber & Son
Mechanicsburg .	Potts Manufacturing Company
Milton	Milton Steel & Supply Company
Norristown	Rodman H. Martin Company
Philadelphia . .	Architectural Products
	M. Cohen & Sons
	Colonial Iron Craftsmen
	Cornell Iron Studios, Inc.
	Crescent Iron Works, Inc.
	Samuel J. Cresswell Iron Works
	G-M Iron Works
	Paul A. Guddat
	George R. Habgood Company
	A. & E. Hoffman
	W. H. McArdle & Son
	J. P. Metal Crafts
	Metal Construction & Fabrication Co.
	Modern Metal Crafts Company
	Samuel Yellin
Pittsburgh	Colonial Ornamental Iron Works
	Columbia Architectural Metals Co.
	Frank Corso & Sons
	Extrudite Metal Company
	Groll Ornamental Iron Works
	Keystone Ornamental Iron Company
	H. R. Leuenberger Ornamental Iron
	Mt. Washington Ornamental Iron Works
	Pittsburgh Iron Works
	Reiling Manufacturing Company
	Reliable Ornamental Iron Works
	South Hills Ornamental Iron Co.
	Standard Metal Products Company
Reading	Modern Iron Works
	Reading Art Metal Company
	Reading Steel Products, Inc.
Red Lion	Formit Steel Fabricating Company
Schuylkill Haven	Ebinger Iron Works
Scranton	McGregor Architectural Iron Co., Inc.
	Standard Iron Works
Souderton	Tubular Products, Inc.
Telford	William R. Compton
Uniontown	Rose Iron Works, Inc.
Upper Darby . .	Delaware Valley Steel, Inc.
Waynesboro . .	Rouzerville Fabricating & Welding Shop
Wilkes Barre . . .	Letinski Iron Works
	Wilkes-Barre Iron & Wire Works, Inc.
Williamsport . .	Reynolds Iron Works, Inc.
York	Atlas Manufacturing Company

RHODE ISLAND

Pawtucket	Continental Bronze Company
	Engineering Products & Specialties, Inc.
Providence	Joseph Monzack & Sons

SOUTH CAROLINA

Charleston	Carolina Iron & Fence Works
Columbia	Colonial Iron Works, Inc.
	Commodity Engineering Company
	Davis Welding & Iron Works
	Grant-Stevens Company
	Kline Iron & Steel Company
	Palmetto Metal Products, Inc.
Greenville	Parham's Steel Service
	Rodrigue Ornamental Iron Company
Greer	Troy D. Vaughn

SOUTH DAKOTA

Sioux Falls	Egger Steel Company
	Hassenstein Steel Company

TENNESSEE

Chattanooga . .	Gentry Steel
	Standard Iron & Wire Works, Inc.
Henning	Fields & Thompson
Johnson City. . .	Inter-State Foundry & Machine Co.
	Johnson City Foundry & Machine Works
Knoxville	Frazier's Welding & Steel Company
Memphis	American Ornamental Iron Company
	Memphis Steel Fabricators, Inc.
	Pidgeon-Thomas Iron Company
	Tri-State Iron Works
Nashville	Englert Engineering Company
	Justice Steel, Inc.
	McMurray Structural Steel Company

TEXAS

Arlington	Southern Industrial Steel Company
Austin	Tips Iron & Steel Company
Beaumont	H. A. Feigelson Steel Const. Co.
Channelview . .	Triumph Storecrafters Corp.
Corpus Christi . .	Gulf Iron Works
	Western Steel Company
Dallas	Acme Ornamental Metals
	Dallas Metalsmiths
	Dallas Nesbit Metal Co.
	Otto Coerver Company, Inc.
	Trinity Brass & Copper Co., Inc.
	Volkmer & Kratz Co., Inc.
El Paso	Darbyshire Steel Co.
	Modern Iron Works, Inc.
Fort Worth	Allied Iron Works, Inc.
	Thornton Steel Company
Galveston	Butterowe Sheet Metal Works
Grand Prairie . .	Hughes Structural Fabricators, Inc.
Houston	Acme Brass and Aluminum Mfg. Co.
	Architectural Iron Works
	Berger Iron and Wire Works
	Fabricated Steel Products Company
	Houston Iron & Steel Company
	Offenhauser Company
	Pan Am Steel, Inc.
	Southern Industrial Steel Company
Lubbock	Lubbock Steel Works, Inc.
Mesquite	Art Metals Fabricators
Orange	Ramsey Kantz, Inc.
Pasadena	Companion Manufacturing Company

San Antonio	Bexar Steel Company
	Samuels Metal Products
	San Antonio Steel Corporation
	Seidel Wrought Iron Works
Waco	Alamo Steel & Machine Company
	Central Texas Iron Works
Wichita Falls	Burcamp Steel Company

UTAH

Salt Lake City	Crager Wire & Iron Works
	Metals Manufacturing Company
	Niederhauser Ornamental Metal Works
	Shop Arts, Inc.
	Titan Steel Corp.
	Western Iron & Bronze Works

VERMONT

Burlington	Vermont Structural Steel Corp.

VIRGINIA

Alexandria	James Steel Fabricators, Inc.
	Mimsco Metal Products Corp.
Arlington	Atlas Machine & Iron Works
	A. F. Jorss Iron Works, Inc.
	Union Iron Works Company
Lynchburg	Currier Steel, Inc.
	Montague-Betts Company
Norfolk	Globe Iron Construction Company, Inc.
	J. B. Cross, Inc.
Richmond	Greendale Ornamental Iron Company
	Hankins & Johann, Inc.
	Houck & Greene
	Liphart Steel Company, Inc.
Roanoke	Roanoke Iron & Bridge Works, Inc.
	Structural Steel Co., Inc.

WASHINGTON

Ephrata	Northern Steel & Supply Company
Everett	American Boiler Works, Inc.
Seattle	Acme Iron Works
	Aluminum & Bronze Fabricators
	Arrow Iron & Machine Works
	Century Metal Works
	Seattle Bronze Company, Inc.
	Seidelhuber Iron & Bronze Works
	United Iron Works, Inc.
	Zeeb Iron Works
Spokane	Artistic Iron Works
	Union Iron Works
Tacoma	National Blower & Sheet Metal
Vancouver	The Garon Company
Wenatchee	Pybus Steel Company
Yakima	Central Steel & Tank Company

WEST VIRGINIA

Charleston	Swain Steel Co.
	Trojan Steel Company
	West Virginia Steel Corp.
Clarksburg	Mountain State Fabricating Company
	Southern Steel Products Company
Huntington	Steel Products & Mfg. Company
Wheeling	Ohio Valley Steel Company

WISCONSIN

Appleton	Appleton Structural Steel Company
Beaver Dam	Breuer Metal Craftsmen Inc.
Green Bay	Kraft Steel Fabricators, Inc.
La Crosse	Joseph J. Leinfelder & Sons, Inc.
	Ted Mannstedt & Son
	John Torrence & Sons
Madison	Theo. Kupfer Iron Works
	Madison Steel Building Company
Manitowoc	Becker's Ornamental Iron Works
Milwaukee	Atlas Iron & Wire Works
	Badger Wire & Iron Works, Inc.
	Degner Metal Craft, Inc.
	Milwaukee Bridge Company
	Reinke & Schomann, Inc.
	Skobis Company
Racine	Henry Nielsen Iron Works
Saukville	Glander Ornamental Metal
Sheboygan	Reinbacher Ornamental Iron & Copper Works
Wausau	Wausau Iron Works

THE RESPONSIBILITY FOR THE RIGIDITY AND FINISHED APPEARANCE OF A BLUMCRAFT INSTALLATION IS THAT OF THE LOCAL METAL FABRICATING CONTRACTOR WHO BUILDS THE RAILING FROM BLUMCRAFT MATERIALS.

DOMINION OF CANADA

ALBERTA

Calgary	C. K. Steel & Machinery Ltd.
Edmonton	General Tinning Company, Ltd.
	Western Architectural Metals, Ltd.
Lethbridge	Western Metal Fabricators, Ltd.

BRITISH COLUMBIA

New Westminster	Brittain Steel Fabricators, Ltd.
Vancouver	Ornamental Bronze Company, Ltd.

MANITOBA

St. Boniface	Western Tools & Industries, Ltd.
Winnipeg	Dominion Bronze & Iron, Ltd.
	Greensteel Industries, Ltd.
	Manitoba Bridge & Engr. Works, Ltd.

NEW BRUNSWICK

Fredericton	Horsnell Machine & Iron Works

NOVA SCOTIA

Amherst	Robb Engineering Works
Bedford	Metal Masters, Ltd.
Dartmouth	Nelson Brothers Welding Ltd.
New Glasgow	Glasgow Metals Ltd.
Truro	C. A. Annand

ONTARIO

Fort William	The Northern Engineering & Supply Co., Ltd.
Guelph	Wellington Welderies, Ltd.
Hamilton	Adanac Ornamental Iron Works
	Hamilton Guild of Metalcrafts, Ltd.
	Arthur Roberts & Son, Limited
Kitchener	A. J. Braun Mfg. Co.
London	Dennisteel Corporation, Ltd.
	Eberhard & Shrives
Scarborough	Cunningham & Lea Ltd.
Toronto	Art Wire & Iron Company
	Dundas Iron & Steel, Ltd.
	Queensway Iron Works
Trenton	Quinte Machine & Repair Company
Walkerville	Border Cities Wire & Iron Ltd.
Welland	Seaway Plate & Structural Steel Ltd.
Windsor	Fabricated Steel Products, Ltd.
	A. C. McCrindle, Ltd.

QUEBEC

Beauce	St. George Metal Works, Inc.
Drummondville	Atelier Isabelle Engineering
Grand Mere	St. Arneault Ornamental Iron Co.
La Salle	Ville La Salle Welding Reg.
Montreal	Ace Metal Strip, Ltd.
	Beaver Iron Works Co.
	Charles English Lampcraft, Ltd.
	Coulombe Ornamental Iron
	D. & L. Metalwork Reg'd
	A. Faustin, Ltd.
	Foschi & Liberatore Arch. Iron Works
	La Salle Welding, Inc.
	Montreal Forged Products, Ltd.
	Montreal Iron Works, Inc.
	Ornamental Metal & Machine Wks.
Orsainville	Alphonse Chabot & Fils Ltee
Quebec	Les Industries Super-Metal, Inc.
	Adelard Marchand Ltee
	Par-Metal Engineering
	Donat Pouliot
	Rodrigue & Frere Engineers
Rimouski	Atlantic Dry Kiln Ltd.
St. Jean	Desco Products, Ltd.
Shawinigan	Armand Lizotte
	St. Onge Alum. Engineer
Sherbrooke	Therrien & Freres, Inc.

SASKATCHEWAN

Saskatoon	John East Iron Works, Ltd.

SPECIFICATIONS DELUXE-LINE

The Miscellaneous Iron Contractor shall furnish and install aluminum railings where indicated on the working drawings. Part numbers refer to adjustable stock components manufactured by BLUMCRAFT OF PITTSBURGH, 460 Melwood Street, Pittsburgh 13, Pennsylvania, and shall be as illustrated in their catalogue M-64, and as published in Sweets Architectural File.

WORKMANSHIP

The Miscellaneous Iron Contractor shall bend and shape the stock handrail bars as required. All work shall be of the finest quality. It shall be fabricated in a shop whose principal business is the manufacture of highest grade architectural metal work.

SHOP DRAWINGS

The Miscellaneous Iron Contractor shall forward shop drawings to Blumcraft of Pittsburgh for manufacturer's recommendations, prior to submission for Architect's approval.

INSTALLATION

The railings shall be rigidly and securely installed in a first class manner by mechanics experienced in the erection of architectural aluminum. All post mountings and handrail brackets shall be securely anchored. All fasteners, screws, and fittings shall be drawn tightly. Recessed holes of locking set screws shall be sealed with a plastic aluminum filler cement. During construction the aluminum and wood trim shall be protected until the building is ready for occupancy.

ALLOYS

The aluminum for connecting fittings AF-, SC-, and CC- shall be 6062-T-6 hardened alloy. All other aluminum shall be U.S. Alloy 6063 or Canada Alloy 50SA33.

FABRICATOR'S RESPONSIBILITY

The Miscellaneous Iron Contractor who builds the railing from Blumcraft materials shall be responsible for the workmanship, finish and rigidity of the installation.

WOOD HANDRAILS

Solid walnut wood handrails, fitted to the aluminum subrailing structure, shall be furnished as complete units by Blumcraft of Pittsburgh. Wood finish shall be rubbed oil, and exposed aluminum shall be satin.

RAIL CONNECTORS TO POSTS AND WALL

The triangle rail connectors shall be of two parts and locked into slot of handrail when drawn together. Thickness shall not exceed $\frac{5}{16}''$ to allow maximum finger clearance. The alloy shall be 6062-T-6 hardened aluminum. These triangle connectors shall be held and drawn together by a horizontal cone fitting assembly. The cone fitting combined with the cap nut shall have a taper giving the appearance of a single fitting.

POST AND BALUSTER SPACING

Posts shall be spaced not over 4′-0″ on center (2′-0″ maximum for #114 handrail). Balusters shall be spaced not over 1′-0″ on center. On stairs the maximum spacing applies to the slope dimension. Closer spacing of posts is required when railing height exceeds 3′-0″. Provide braces for long spans. Where railing crosses stringer, apply connector between stringer and railing for added rigidity.

WALL BRACKETS

Wall Brackets shall be spaced not over 4′-0″ on center (2′-0″ maximum for #114 handrail). Wall brackets applied to plaster wall shall have adjustable steel spacer between back of wall plate and masonry wall.

RAIL TERMINALS

Ends of handrails that are not attached to walls, to floors or to stairs shall have sculptured terminals with engraved lines as shown on page 95 of catalogue M-64. These terminals shall have sloped locking set screws so they can be drawn up tightly to the handrailing. Stainless steel pins and aluminum tee bar shall be used in the connection, for alignment.

SPLICE CONNECTORS

Splice joints shall have a neat hair-line fit. Handrails shall be spliced at center of post or wall bracket only, and not between. Splice connectors shall match triangle rail connectors in appearance and shall have sloped locking set screws in opposite directions so the handrails can be drawn together at the splice with a hair-line fit. The alloy shall be 6062-T-6 hardened aluminum.

MITERED CORNERS

All mitered corners shall have a neat hairline fit and shall be joined with an angle tee made of solid aluminum hardened alloy 6062-T-6 to fit the shape of the tee slot in the rail. These corner connectors shall have sloped locking set screws so handrails can be drawn up tightly at the joint with a neat hairline fit. If handrails are not to be anodized, corners may be welded. If anodized finish is specified, corners are not to be welded.

BOXED STRINGERS

Boxed stringers shall be reinforced with steel blocking behind each side-mounted bracket. The reinforced blocking shall be welded to the web of the stringer.

STARTING POSTS

All starting posts, including those with side-mounted brackets, shall extend into the floor for added rigidity.

FILLER STRIP

All exposed slots of handrails and posts shall be closed with snap-in filler strips and held in position under tension. There shall be no exposed screws.

ANCHORS FOR CONCRETE

Provide adjustable malleable iron or steel anchors which are to be built into concrete for side-mounted posts or balusters. Select proper anchor engineered to accommodate type of post or baluster. The built-in portion of the anchor shall be welded to the reinforcement bars. For long spans provide brace anchors. After installation the exposed portion of the malleable iron or steel anchor shall be given a protective coat of paint, color to be selected by the Architect.

FINISH OF ALUMINUM

INTERIOR RAILINGS

Posts, balusters and accessories shall have a polished satin finish followed by anodized finish 204-C1.

Top rails, intermediate and wall rails shall have a rubbed satin finish (not anodized) by sanding in one direction only parallel to length of handrail bar with #120, #240, and #320 grit. After installation, handrail bars shall be polished with No. 0 steel wool immersed in paste wax then rubbed to a luster with a soft dry cloth.

EXTERIOR RAILINGS

Posts, balusters, top rails, intermediate rails, wall rails, and accessories shall have a polished satin finish followed by anodized finish 204-C1.

**Note to Architect: An anodized finish is not recommended for interior handrails as a deep scratch from a finger ring, tool or other object may leave a permanent black mark.*

ADDITIONAL SPECIFICATIONS

Tube-Line	page 141
Grill-O-Metrics	page 103
Bar-O-Metrics	page 113
Pipe-Fittings	page 143
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SHORT FORM SPECIFICATIONS

ALUMINUM RAILINGS SHALL BE BUILT IN STRICT ACCORDANCE WITH THE SUGGESTED MANUFACTURER'S SPECIFICATIONS SHOWN IN BLUMCRAFT'S CURRENT CATALOGUE AND AS PUBLISHED IN SWEET'S ARCHITECTURAL FILE 6e/BLU, AND IN ACCORDANCE WITH THE DETAILS SHOWN ON SHEET________OF ARCHITECT'S DRAWING. ALL ALUMINUM SHALL HAVE A SATIN FINISH.

THE MISCELLANEOUS IRON CONTRACTOR, WHO BUILDS THE RAILINGS FROM BLUMCRAFT MATERIALS, SHALL BE RESPONSIBLE FOR WORKMANSHIP, FINISH AND RIGIDITY OF THE INSTALLATION . . . AND SHALL FORWARD SHOP DRAWINGS TO BLUMCRAFT OF PITTSBURGH FOR MANUFACTURER'S RECOMMENDATIONS, PRIOR TO SUBMISSION FOR ARCHITECT'S APPROVAL.

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